FORUM
Imperatives. Aronson MP. Am J Obstet Gynecol 2005 May;192(5):1483-7.

Does resident post graduate year influence the outcomes of inguinal hernia repair? Wilkiemeyer M, Pappas TN, Giobbie-Hurder A, Itani KM, Jonasson O, Neumayer LA. Ann Surg 2005 Jun;241(6):879-82; discussion 882-4.
INTRODUCTION: We evaluated the effect of the postgraduate medical education level (PGY) of surgery residents on recurrence of inguinal hernia, complications, and operative time. METHODS: Post hoc analysis was performed on prospectively collected data from a multicenter Veterans Affairs (VA) cooperative study. Men were randomly assigned to open or laparoscopic inguinal hernia repairs with mesh. Surgery residents performed repairs with designated attending surgeons present throughout all procedures. PGY level of the resident was recorded for each procedure. All patients were followed for 2 years for hernia recurrence and complications. PGY levels were grouped as follows: group I = PGY 1 and 2; group II = PGY 3; group III = PGY >/= 4; rates of recurrence, complications and mean operative time were compared. RESULTS: A total of 1983 patients underwent hernia repair. group III residents had significantly lower recurrence rates for open repairs when compared with group I (adjusted odds ratio = 0.24, 95% confidence interval [CI], 0.06, 0.997). The recurrence rate was similar among the groups for laparoscopic repair (P > 0.05) Complication rates were not different for either repair (P > 0.05). Mean operative time was significantly shorter for group III compared with group I for both open (-6.6 minutes; 95% CI, -11.7, -1.5) and laparoscopic repairs (-12.9 minutes; 95% CI, -19.8, -6.0) and between group II and group I for laparoscopic repair (-15.0; 95% CI, -24.3, -5.7). CONCLUSIONS: Despite the presence of an attending surgeon, open hernia repairs performed by junior residents were associated with higher recurrence rates than those repaired by senior residents. Lower resident level was associated with increased operative time for both open and laparoscopic repair.

1 – THE PELVIC FLOOR
The hidden epidemic of pelvic floor dysfunction: achievable goals for improved prevention and treatment. DeLancey JO. Am J Obstet Gynecol 2005 May;192(5):1488-95.
Each year, pelvic floor dysfunction affects between 300,000 and 400,000 American women so severely that they require surgery. Approximately 30% of the operations performed are re-operations. The high prevalence of this problem indicates the need for preventive strategies, and the common occurrence of re-operation indicates the need for treatment improvement. Efforts at prevention and treatment improvement will only be possible if research clarifies causative mechanisms and scientifically valid studies discover why operations fail. By reaching a goal of 25% prevention we could save 90,000 women from experiencing pelvic floor dysfunction and with 25% treatment improvement we could avoid 30,000 women from needing a second operation. To achieve these goals we must discover specific events or behaviors in a woman's life that lead to these problems and that are amenable to preventive strategies. In addition, we must define specific biologic and behavioral factors that explain why certain women have recurrence after surgery. Because the pelvic organ support system is comprised of muscles, ligaments, and nerves arranged in a complex tension-based apparatus, the basic nature of this work must include biomechanical analyses of the overall mechanism and targeted research into the biology of muscle, ligament, nerve, and their complex interactions in normal pelvic floor function and in symptomatic patient. Each of these scientific disciplines is well developed so that engaging scientists in the effort to move forward will bring predictably important results. With an integrated approach to this problem over the next 20 years, it should be possible to achieve these goals and reduce the suffering for more than 100,000 afflicted women.

Use of a continence nurse specialist in an extended care facility. Klay M, Marfyak K. Urol Nurs 2005 Apr;25(2):101-2, 107-8.
PURPOSE: The aim of this study was to determine if the number of incontinence episodes for an elderly female population could be decreased through an individualized continence program in a Connecticut long-term care center. METHODS: Forty-two female residents who in a long-term care facility who were incontinent or had urgency related to overactive bladder were included in the incontinence program. Total numbers of incontinent episodes for each participant were recorded 1 week prior to the study. An individualized plan of care for each patient was developed by the continence specialist and the plan of care implemented for at least 1 year. FINDINGS: After the continence specialist recommended a program of treatment and the program of treatment was implemented for 1 year, the number of UTIs (31 preintervention year; 6 postintervention year) and pressure ulcers (15 preintervention year; 2 postintervention year) were substantially decreased and the number of falls cut by more than 50% (18 preintervention; 7 postintervention). CONCLUSION: A nurse continence specialist can be used to help long-term care facilities plan a program that will direct individualized nursing interventions that will improve patient outcomes related to UTI, pressure sore and fall rates, and reduce the costs of care.

Sacral Neuromodulation: Long-Term Experience of One Center. Elhilali MM, Khaled SM, Kashiwabara T, Elzayat E, Corcos J. Urology 2005 May 20;.
OBJECTIVES: To perform a retrospective analysis of the long-term results of our experience with neuromodulation. Our center has been involved in the early studies leading to approval of the NeuroStim system of neuromodulation for the treatment of patients presenting with refractory lower urinary symptoms of urgency/frequency with or without incontinence and chronic urinary retention. METHODS: A total of 52 patients have undergone implantation at our center since 1990 using very rigid criteria, including temporary percutaneous nerve evaluation for up to 7 days and a requirement of 50% improvement before consideration for implantation. Patients were followed up closely and a telephone questionnaire was conducted for those patients not seen in the previous 6 months. Of the 52 patients, 11 were not available for evaluation. Of the 41 remaining patients, 22 had urgency/frequency syndrome, 6 had urgency incontinence, 9 had urinary retention, and 4 had interstitial cystitis with intractable pelvic pain. RESULTS: Of the 41 patients, 5 required explantation. These 5 patients were offered reimplantation but declined. Of the 22 patients in the urgency/frequency group, 10 (45%) had persistent improvement. In the urgency incontinence group, 3 of the 6 patients required explantation, and 1 (17%) reported improvement in the frequency of incontinence episodes. Of the 9 patients in the chronic urinary retention group, 7 (78%) had improvement. CONCLUSIONS: The long-term (up to 13 years) results of neuromodulation in patients presenting with urgency/frequency with and without urge incontinence and urinary retention were reviewed. The long-term results in the first two groups were not maintained over time. The patients with chronic urinary retention, although a small sample, fared better.

Physiotherapy for female stress urinary incontinence: a multicentre observational study. Neumann PB, Grimmer KA, Grant RE, Gill VA. Aust N Z J Obstet Gynaecol 2005 Jun;45(3):226-32.
Abstract Background: No previous data are available on the effectiveness of physiotherapy management of urinary stress incontinence with relevance to the Australian health system. Aims: To evaluate Australian ambulatory physiotherapy management of stress urinary incontinence. Methods: Observational multicentre clinical study of physiotherapy management of female stress urinary incontinence between February 1999 and October 2000, with 1-year follow-up. Outcome measures were a stress test and a 7-day diary of incontinent episodes (pretreatment and at every visit) and a condition-specific quality of life (QoL) questionnaire (pre- and post-treatment). Subjects were followed-up 1 year after treatment by questionnaire with a 7-day diary, QoL questionnaire, and assessment of subjective outcome, subjective cure, satisfaction and need for surgery. Results: Of the 274 consenting subjects, 208 completed an episode of physiotherapy care consisting of a median (IQ range) of five (four to six) visits. At the end of the episode, 84% were cured and 9% improved on stress testing, whilst 53% were cured and 25% improved according to the 7-day diary. Mean volume of urine loss on stress testing reduced from 2.4 (2.5) mL to 0.1(0.4) mL after treatment. There was a significant improvement in all QoL domains. Median (interquartile range) incontinent episodes per week were reduced from five (three to 11) to zero (zero to two) ($P < 0.05$) after treatment and to one (zero to four) at 1 year ($P < 0.05$). At 1 year, approximately 80% of respondents had positive outcomes on all outcome measures. Conclusions: Physiotherapy management in Australian clinical settings is an effective treatment option for women with stress urinary incontinence.

Obstetric antecedents for postpartum pelvic floor dysfunction. Casey BM, Schaffer JI, Bloom SL, Heartwell SF, McIntire DD, Leveno KJ. Am J Obstet Gynecol 2005 May;192(5):1655-62.
OBJECTIVE: The purpose of this study was to evaluate prospectively the association between selected obstetric antecedents and symptoms of pelvic floor dysfunction in primiparous women up to 7 months after childbirth. STUDY DESIGN: All nulliparous women who were delivered between June 1, 2000, and August 31, 2002, were eligible for a postpartum interview regarding symptoms of persistent pelvic floor dysfunction. Responses from all women who completed a survey at or before their 6-month contraceptive follow-up visit were analyzed. Obstetric antecedents to stress, urge, and anal incontinence were identified, and attributable risks for each factor were calculated. RESULTS: During the study period, 3887 of 10,643 primiparous women (37%) returned within 219 days of delivery. Symptoms of stress and urge urinary incontinence, were significantly reduced ($P < .01$) in women who underwent a cesarean delivery. Symptoms of urge urinary incontinence doubled in women who underwent a forceps delivery ($P = .04$). Symptoms of anal incontinence were increased in women who were delivered of an infant who weighed >4000 g ($P = .006$) and more than doubled in those women who received oxytocin and had an episiotomy performed ($P = .01$). CONCLUSION: The likelihood of symptoms of pelvic floor dysfunction up to 7 months after delivery was greater in women who received oxytocin, who underwent a forceps delivery, who were delivered of an infant who weighed >4000 g, or who had an episiotomy performed. Women who underwent a cesarean delivery had fewer symptoms of urge and stress urinary incontinence.

Pudendal nerve stretch during vaginal birth: a 3D computer simulation. Lien KC, Morgan DM, Delancey JO, Ashton-Miller JA. Am J Obstet Gynecol 2005 May;192(5):1669-76.
OBJECTIVE: The purpose of this study was to determine the increase in pudendal nerve branch lengths using a 3D computer model of vaginal delivery. STUDY DESIGN: The main inferior rectal and perineal branches of the pudendal nerve were dissected in 12 hemi-pelves from 6 adult female cadavers. Their 3D courses were digitized in the 4 specimens with the most characteristic nerve branching pattern, and the data were imported into a published 3D computer model of the pelvic floor. Each nerve branch was then represented by a stretchable cord with a fixation point at the ischial spine. The length change in each branch was then quantified as the fetal head descended through the pelvic floor. The maximum nerve strains ([final length minus original length/original length] x 100) were calculated for 5 degrees of perineal descent: reference descent from the literature, 1.25 cm and 2.5 cm caudal and cephalad. The effect of alternative fixation points on resultant nerve strain was also studied. RESULTS: The inferior rectal branch exhibited the maximum strain, 35%, and this strain varied by 15% from the scenario with the least perineal descent to that with the most perineal descent. The strain in the perineal nerve branch innervating the anal sphincter reached 33%, while the branches innervating the posterior labia and urethral sphincter reached values of 15% and 13%, respectively. The more proximal the nerve fixation point, the greater the nerve strain. CONCLUSION: During the second stage: (1) nerves innervating the anal sphincter are stretched beyond the 15% strain threshold known to cause permanent damage in appendicular peripheral nerve, and (2) the degree of perineal descent is shown to influence pudendal nerve strain.

A randomized trial of the effects of coached vs uncoached maternal pushing during the second stage of labor on postpartum pelvic floor structure and function. Schaffer JI, Bloom SL, Casey BM, McIntire DD, Nihira MA, Leveno KJ. Am J Obstet Gynecol 2005 May;192(5):1692-6.
OBJECTIVE: The purpose of this study was to determine if refraining from coached pushing during the second stage of labor affects postpartum urogynecologic measures of pelvic floor structure and function. STUDY DESIGN: Nulliparous women at term were randomized to coached (n = 67) vs uncoached (n = 61) pushing. At 3 months' postpartum women underwent urodynamic testing, pelvic organ prolapse examination (POPQ), and pelvic floor neuromuscular assessment. RESULTS: Urodynamic testing revealed decreased bladder capacity (427 mL vs 482 mL, P = .051) and decreased first urge to void (160 mL vs 202 mL, P = .025) in the coached group. Detrusor overactivity increased 2-fold in the coached group (16% vs 8%), although this difference was not statistically significant (P = .17). Urodynamic stress incontinence was diagnosed in the coached group in 11/67 (16%) vs 7/61 (12%) in the uncoached group (P = .42). CONCLUSION: Coached pushing in the second stage of labor significantly affected urodynamic indices, and was associated with a trend towards increased detrusor overactivity.

Pelvic organ prolapse, constipation, and dietary fiber intake in women: a case-control study. Arya LA, Novi JM, Shaunik A, Morgan MA, Bradley CS. Am J Obstet Gynecol 2005 May;192(5):1687-91.
OBJECTIVE: This study was undertaken to determine whether there is an association among pelvic organ prolapse, constipation, and dietary fiber intake. STUDY DESIGN: Sixty consecutive women with prolapse were compared with 30 control women without prolapse. All women completed 2 validated questionnaires to assess constipation and dietary fiber intake. Multivariate analysis was performed. RESULTS: The risk for constipation was greater in women with prolapse than controls (odds ratio 4.03, 95% CI 1.5-11.4). Median insoluble fiber intake was significantly lower in women with prolapse (2.4 g) than controls (5.8 g, P < .01). The increased risk for constipation was reduced but remained significant after controlling for age and insoluble dietary fiber intake (odds ratio 2.9, 95% CI 1.1-13.5). CONCLUSION: Women with pelvic organ prolapse are at a higher risk for constipation than controls. This increased risk for constipation is partially explained by lower intake of dietary insoluble fiber by women with prolapse than controls.

Should women be offered elective cesarean section in the hope of preserving pelvic floor function? Nygaard I. Int Urogynecol J Pelvic Floor Dysfunct 2005 Jun 2;.

2 – FUNCTIONAL ANATOMY

Immunohistochemical evidence for the interaction between levator ani and pudendal motor neurons in the coordination of pelvic floor and visceral activity in the squirrel monkey. Pierce LM, Reyes M, Thor KB, Dolber PC, Bremer RE, Kuehl TJ, Coates KW. Am J Obstet Gynecol 2005 May;192(5):1506-15.
OBJECTIVE: The purpose of this study was to characterize the spinal distribution of afferent and efferent pathways that innervate the levator ani (LA) muscle in the female squirrel monkey. STUDY DESIGN: Cholera toxin B (CTB) was injected unilaterally into the LA muscle of 5 monkeys to identify primary sensory neurons in the dorsal root ganglia (DRG) and motor neurons in the spinal cord that contribute fibers to the LA nerve. Fluoro-Gold (FG) was injected into the external anal sphincter of 2 of these animals to label pudendal motor neurons (1 of these animals underwent unilateral LA neurectomy before CTB injection). Spinal cord and

DRG were processed for immunofluorescence 3 to 7 days after injections. RESULTS: Retrograde transport of CTB from the LA muscle labeled primary afferent neurons in the ipsilateral DRG, their central projections, and motor neurons in the medial portion of the ipsilateral ventral horn of the spinal cord (L7-S2 segments). Injection of FG into the external anal sphincter labeled cells in Onuf's nucleus, primarily in L7. Importantly, CTB-labeled LA motor neurons were virtually absent in Onuf's nucleus, where all pudendal motor neurons are located. CTB-labeled processes were observed within Onuf's nucleus, adjacent to FG-labeled pudendal motor neurons, and appeared to derive from dendrites of LA motor neurons that project into Onuf's nucleus. CONCLUSION: The LA muscle has a distinct innervation with very little or no contribution from the pudendal nerve. The intriguing labeling of LA neural elements within a nucleus that innervates the external urethral and anal sphincters (involved in pelvic visceral control) may represent a neuroanatomic substrate for physiologic integration of spinal and supraspinal inputs for the coordination of pelvic floor and visceral activity.

Vascular anatomy of the presacral space: a fresh tissue cadaver dissection. Flynn MK, Romero AA, Amundsen CL, Weidner AC
Am J Obstet Gynecol 2005 May;192(5):1501-5.
OBJECTIVE: To assess variability in the vascular structures of the presacral space and to estimate the risk of injury because of blind suture placement during sacral colpopexy. STUDY DESIGN: Ten fresh frozen female cadavers were evaluated. Three 0-polyester sutures were placed blindly through the peritoneum and around the midline of the anterior longitudinal ligament. The presacral space was dissected and the sutures examined for injury to vessels. The midline of the anterior longitudinal ligament was marked from the promontory to its inferior edge, and measurements were taken to the leading edge of vessels proximal to the presacral space. On a template, all vessels larger than 2 mm were drawn to scale and overlaid on the template. RESULTS: Unequivocal vascular injury was found in 5 cadavers because of blind sutures. Four injuries occurred to the middle sacral artery and 1 to the left common iliac vein. There was significant variability in location of vessels, particularly on the left side of the ligament. CONCLUSIONS: The vascular pattern of the presacral space is variable, and major vessels may deviate significantly from their expected positions. Surgeons should carefully expose this space prior to placing sutures during sacral colpopexy.

Impaired expression of myogenic regulatory molecules in the pelvic floor muscles of murine embryos with anorectal malformations. Aoi S, Shimotake T, Tsuda T, Deguchi E, Iwai N. J Pediatr Surg 2005 May;40(5):805-9.
Abstract Background/Purpose Recent biological studies have elucidated the molecular mechanism of muscle development, in which various regulatory factors (myogenic regulatory factors [MRFs]) play key roles during embryogenesis. To investigate the development of anorectal malformations (ARMs), we studied MRF expressions in myogenic cells in the pelvic floor using murine embryos affected with ARM. Methods Anorectal malformation embryos were obtained from the 10.5th embryonal day (E10.5) to the 7.0th postnatal day (D7.0) in a natural mutant strain (Sd/+, RSV/Le). Serial frozen sections were prepared for immunohistochemistry using specific antibodies to M-cadherin, myoD, Myogenin, myosin heavy chain, and alfa-actin molecule. Results In normal mice, embryonal caudal somites differentiated into myogenic stem cells and migrated to the pelvic floor between E11.0 and E14.0. In the ARM mice, however, caudal somites were irregularly arranged and MRF expressions in myogenic cells were markedly decreased in the dorsocaudal region at E11.5 to E13.0, leading to hypoplastic pelvic floor muscles. Conclusions The maldevelopment of pelvic floor muscles in ARM is derived from a deficient supply of myogenic stem cells, with impaired MRF expression. These results suggest that myogenic stem cells, available from bone marrow contents, may be used for postnatal muscle regeneration to reinforce the pelvic floor muscle function in children with ARM.

Elastin metabolism in pelvic tissues: is it modulated by reproductive hormones? Chen B, Wen Y, Yu X, Polan ML. Am J Obstet Gynecol 2005 May;192(5):1605-13.
OBJECTIVE: The purpose of this study was to investigate the effect of relaxin on extracellular matrix protein expression in pelvic fibroblasts that were cultured from women with stress urinary incontinence compared with asymptomatic control subjects. STUDY DESIGN: Periurethral vaginal wall fibroblasts from premenopausal women with stress urinary incontinence and continent women (in both the proliferative and secretory phase of the menstrual cycle) were stimulated with increasing concentrations of relaxin (0-500 ng/mL). The supernatant was sampled for matrix metalloproteinase-2 and -9 by zymography. Tissue inhibitors of metalloproteinase-1 and -2 and alpha-1 antitrypsin were evaluated with Western blot. Total elastase activity was measured by generation of free amino groups from succinylated elastin. Increasing concentrations of alpha-1 antitrypsin were added to cell lysate to evaluate total elastase activity inhibition. RESULTS: Proliferative-phase stress urinary incontinence fibroblasts demonstrated an increase in matrix metalloproteinase-2 and no change in matrix metalloproteinase-9 and tissue inhibitors of metalloproteinase-1

and -2 expressions with increasing relaxin concentrations. Cells from control subjects showed increased expression of matrix metalloproteinase-2 and -9, but no change in tissue inhibitors of metalloproteinases. Secretory-phase stress urinary incontinence fibroblasts showed no response in matrix metalloproteinase or tissue inhibitors of metalloproteinase expressions with relaxin stimulation. Secretory-phase control fibroblasts reacted by increasing matrix metalloproteinase-2 and -9 and tissue inhibitors of metalloproteinase-2. With respect to total elastase activity and alpha-1 antitrypsin expression, increasing doses of relaxin appear to increase elastolytic activity in stress urinary incontinence cells by decreasing the expression of alpha-1 antitrypsin in proliferative phase cells or increasing the total elastase activity in secretory phase cells. Fibroblast total elastase activity was inhibited by increasing concentrations of alpha-1 antitrypsin. CONCLUSION: Elastase activity appears to be increased in relaxin-stimulated stress urinary incontinence fibroblasts by either decreased inhibitor (alpha-1 antitrypsin) production or increased elastase activity.

Estrogen increases collagen I and III mRNA expression in the pelvic support tissues of the rhesus macaque. Clark AL, Slayden OD, Hettrich K, Brenner RM. Am J Obstet Gynecol 2005 May;192(5):1523-9.
OBJECTIVE: Our aim was to study the effect of estradiol and raloxifene on collagen synthesis, by measuring the expression collagen I and III mRNA. STUDY DESIGN: Nineteen nulliparous young adult rhesus macaques underwent oophorectomy and were treated for 5 months with estradiol alone, raloxifene, or no hormone. Tissue samples were acquired from the lateral vaginal wall, and included the paravaginal attachment and levator ani muscle. Expression of mRNA for collagen I and III was measured by in situ hybridization. RESULTS: Estradiol increased mRNA for collagen I and III compared with no hormone and raloxifene treatment (ANOVA, $P < .05$). Collagen mRNA was localized to fibroblasts in the vaginal connective tissue and the connective tissue investments of striated muscle. Collagen mRNA was not expressed in epithelial, smooth, and striated muscle cells. CONCLUSION: Estrogen, but not raloxifene, increases collagen gene transcription and indicates stimulation of collagen synthesis in pelvic floor connective tissues.

Anatomic relationship between the vaginal apex and the bony architecture of the pelvis: a magnetic resonance imaging evaluation. Gutman RE, Pannu HK, Cundiff GW, Melick CF, Siddique SA, Handa VL. Am J Obstet Gynecol 2005 May;192(5):1544-8.
OBJECTIVE: This study was undertaken to define anatomic relationships between the vaginal apex and the ischial spines and sacrum for nulliparous women with normal support. STUDY DESIGN: We retrospectively evaluated the magnetic resonance images of 11 consecutive women who underwent pelvic imaging at Johns Hopkins. Coordinates were recorded for the posterior fornix, sacrum, ischial spines, and cervical vaginal junctions. We calculated vector distances with means, SDs, and 95% CIs. Intraclass correlation coefficients tested interobserver reliability and the Wilcoxon signed rank test compared right- and left-sided measurements. RESULTS: Mean age was 30.4 +/- 9.1 years. The cervical vaginal junction was 1.6 +/- 0.5 cm superior, 1.1 +/- 0.5 cm anterior, and 4.7 +/- 0.4 cm medial to the ipsilateral ischial spine. The posterior fornix was 1.0 +/- 1.0 cm anterior and 5.3 +/- 0.8 cm inferior to the second sacral vertebra. There was excellent interobserver reliability (interclass correlation coefficients = 0.997, $P < .001$) and no detectable difference between sides. CONCLUSION: Consistent relationships exist between the vaginal apex and ischial spines and sacrum, which may be useful in reconstructive pelvic surgery.

Does vaginal closure force differ in the supine and standing positions? Morgan DM, Kaur G, Hsu Y, Fenner DE, Guire K, Miller J, Ashton-Miller JA, Delancey JO. Am J Obstet Gynecol 2005 May;192(5):1722-8.
OBJECTIVE: This study was undertaken to quantify resting vaginal closure force (VCF(REST)), maximum vaginal closure force (VCF(MAX)), and augmentation of vaginal closure force augmentation (VCF(AUG)) when supine and standing and to determine whether the change in intra-abdominal pressure associated with change in posture accounts for differences in VCF. STUDY DESIGN: Thirty-nine asymptomatic, continent women were recruited to determine, when supine and standing, the vaginal closure force (eg, the force closing the vagina in the mid-sagittal plane) and bladder pressures at rest and at maximal voluntary contraction. VCF was measured with an instrumented vaginal speculum and bladder pressure was determined with a microtip catheter. VCF(REST) was the resting pelvic floor tone, and VCF(MAX) was the peak pelvic floor force during a maximal voluntary contraction. VCF(AUG) was the difference between VCF(MAX) and VCF(REST). T tests and Pearson correlation coefficients were used for analysis. RESULTS: VCF(REST) when supine was 3.6 +/- 0.8 N and when standing was 6.9 +/- 1.5 N--a 92% difference ($P < .001$). The VCF(MAX) when supine was 7.5 +/- 2.9 N and when standing was 10.1 +/- 2.4 N--a 35% difference ($P < .001$). Bladder pressure when supine (10.5 +/- 4.7 cm H2O) was significantly less ($P < .001$) than when standing (31.0 +/- 6.4 cm H2O). The differences in bladder pressure when either supine or standing did not correlate with the corresponding differences in VCF at rest or at maximal voluntary contraction. The supine VCF(AUG) of 3.9 +/- 2.7 N, was significantly greater than the standing VCF(AUG) of 3.3+/-1.9 N. CONCLUSION: With change in posture, vaginal closure force increases because of higher intra-abdominal pressure and greater resistance in the pelvic floor muscles.

Evaluation of the role of pudendal nerve integrity in female sexual function using noninvasive techniques. Connell K, Guess MK, La Combe J, Wang A, Powers K, Lazarou G, Mikhail M. Am J Obstet Gynecol 2005 May;192(5):1712-7.
OBJECTIVE: Using quantitative sensory testing and a validated questionnaire, we investigated the role of pudendal nerve integrity in sexual function among women. STUDY DESIGN: Participants completed the Pelvic Organ Prolapse/Urinary Incontinence Sexual Questionnaire (PISQ). Vibratory and pressure thresholds were measured at the S2 dermatome reflecting pudendal nerve distribution. RESULTS: A total of 56 women enrolled; 29 (51.8%) were asymptomatic and 27 (48.2%) had 1 or more forms of female sexual dysfunction (total sexual dysfunction) including: desire disorder 16.1%, arousal disorder 26.8%, orgasmic disorder 25%, and pain disorder 12.5%. Age, parity, menopausal status, and body mass index were similar between groups. PISQ scores were lower in symptomatic subjects compared with controls ($P < .001$). Decreased tactile sensation was found at the clitoris for women with total sexual dysfunction, desire disorder, and arousal disorder. Women with arousal disorder also had decreased tactile sensation at the perineum. CONCLUSION: Pudendal nerve integrity may play a role in female sexual dysfunction.

The distance between the perceived and the actual arcus tendineus fascia pelvis during vaginal paravaginal repair. Claydon CS, Maccarone JL, Grody MH, Steinberg A, Oyama I, Holzberg AS, Caraballo R. Am J Obstet Gynecol 2005 May;192(5):1707-11.
OBJECTIVE: This study was undertaken to determine whether the arcus tendineus fascia pelvis (ATFP) can be accurately identified from the paravaginal space (PVS) without entering the retropubic space (RPS). STUDY DESIGN: Eight patients undergoing vaginal paravaginal repair were enrolled. The paravaginal dissection was completed to the most cephalad portion of the PVS without entering the RPS. The apex of each PVS was stained with methylene blue. The RPS was entered, the ATFP visualized, and 4 sutures were placed along its length to be used for the repair. The perpendicular distance between each suture and the most cephalad area of stain was measured. RESULTS: The mean distance from the perceived to actual ATFP at each suture point (1-4) was 3.5 cm, 2.75 cm, 2.0 cm, and 0.91 cm, respectively. CONCLUSION: In these 8 cases, the RPS had to be entered to accurately identify the ATFP. The degree of error increases as the ischial spine is approached ($P < .001$).

Clitoral anatomy in nulliparous, healthy, premenopausal volunteers using unenhanced magnetic resonance imaging. O'Connell HE, DeLancey JO. J Urol 2005 Jun;173(6):2060-3.
PURPOSE: We determined the magnetic resonance imaging (MRI) characteristics of normal clitoral anatomy. MATERIALS AND METHODS: A series of MRI studies of 10 healthy, nulliparous volunteers with no prior surgery and normal pelvic examination was studied and the key characteristics of clitoral anatomy were determined. A range of different magnetic resonance sequences was used without any contrast agent. RESULTS: The axial plane best revealed the clitoral body and its proximal continuation as the paired crura. The glans was seen more caudal than the body of the clitoris. The bulbs of the clitoris had the same signal as the rest of the clitoris in the axial plane and they related consistently to the other erectile structures. The bulbs, body and crura formed an erectile tissue cluster, namely the clitoris. In turn, the clitoris partially surrounded the urethra and vagina, forming a consistently observed tissue complex. Midline sagittal section revealed the shape of the body, although in this plane the rest of the clitoris was poorly displayed. The coronal plane revealed the relationship between the clitoral body and labia. The axial section cephalad to the clitoral body best revealed the vascular component of the neurovascular bundle to the clitoris. The fat saturation sequence particularly highlighted clitoral anatomy in healthy, premenopausal, nulliparous women. CONCLUSIONS: Normal clitoral anatomy has been clearly demonstrated using noncontrast pelvic MRI.

Inhibitory Effects of Sildenafil Citrate on the Tonus of Isolated Dog Internal Anal Sphincter. Aygen E, Camci C, Durmus AS, Dogru O, Topuz O, Ayten R, Ayar A. Dis Colon Rectum 2005 May 26;.
PURPOSE: Although the exact pathogenesis of anal fissure is not known, hypertonicity of the internal anal sphincter might be involved in its pathogenesis as main event. To gain information about possible usefulness of the novel, smooth-muscle-relaxing drug, sildenafil, in chronic anal fissure, we investigated the effect of sildenafil citrate on acetylcholine-induced contractility of internal anal sphincter isolated from dogs. METHODS: Internal anal sphincter strips were taken from German shepherd dogs and suspended in a tissue bath filled with Krebs solution at 37 degrees C (pH 7.4) continuously bubbled with 95 percent oxygen and 5 percent carbon dioxide, and isometric contractions were recorded. Contractions were evoked by 10 muM acetylcholine, and the effects of different concentrations of sildenafil citrate (0.1, 0.3, and 1 mM) on the isometric tension of each internal anal sphincter strip were examined. The statistical significance was analyzed by one-way analysis of variance. RESULTS: Pretreatment with sildenafil citrate (0.1 mM) attenuated contractile response to acetylcholine (n = 3), which were significantly weak compared with the maximum contractile response to the acetylcholine alone (610 +/- 110 mg vs. 2,825.17 +/- 416 mg; n = 12; P

< 0.05). Sildenafil citrate also significantly inhibited the acetylcholine-induced contractions in a dose-dependent manner when applied after. CONCLUSIONS: This experimental in vitro study showed that sildenafil citrate relaxes acetylcholine stimulated contractions of isolated dog internal anal sphincter. This may be of importance for raising the possibility that sildenafil cit-rate may have future potential in the treatment of chronic anal fissure. Further studies are needed for a conclusive decision on possible usefulness of sildenafil citrate in patients with chronic anal fissure.

Contribution of the pudendal nerve to sensation of the distal rectum. Chan CL, Ponsford S, Scott SM, Swash M, Lunniss PJ. Br J Surg 2005 May 16;.
BACKGROUND:: Anal and rectal sensory mechanisms and pudendal nerve function are important in the control of faecal continence. The contribution of the pudendal nerve to sensation of the distal rectum was investigated. METHODS:: Heat thresholds in the anal canal, distal and mid rectum were measured using a specially designed thermoprobe. Rectal sensory threshold volumes were measured using the balloon distension method. Needle electrodes were inserted into the external anal sphincter. Pudendal nerve block was performed through a perineal approach, and completeness assessed by loss of electromyographic activity. Heat and rectal volume thresholds were measured again following unilateral and bilateral pudendal nerve block. RESULTS:: The technique was successful in four of six volunteers. Bilateral pudendal nerve block produced complete anaesthesia to heat in the anal canal (P = 0.029), but had no effect on heat thresholds in the distal or mid rectum. Rectal sensory threshold volumes were also unaffected by pudendal nerve anaesthesia. CONCLUSION:: Anal canal sensation is subserved by the pudendal nerve, but this nerve is not essential to nociceptive sensory mechanisms in the distal or mid rectum. The transition between visceral control mechanisms in the lower rectum and somatic mechanisms in the anal canal may have functional importance in the initiation of defaecation and the maintenance of continence. Copyright (c) 2005 British Journal of Surgery Society Ltd. Published by John Wiley & Sons, Ltd.

Rectocolonic Excitatory Reflex or Rectocolonic Inhibitory Reflex? Shafik A. Dis Colon Rectum 2005 May 26;.

5-HT4 receptors located on cholinergic nerves in human colon circular muscle. Leclere PG, Prins NH, Schuurkes JA, Lefebvre RA. Neurogastroenterol Motil 2005 Jun;17(3):366-75.
5-Hydroxytryptamine 4 (5-HT4) receptor agonists promote colonic propulsion. The alteration of circular muscle (CM) motility underlying this involves inhibition of contractility via smooth muscle 5-HT4 receptors and proximal colonic motility stimulation, the mechanism of the latter not having been characterized. Our aim was to identify and characterize a 5-HT4 receptor-mediated stimulation of human colon CM contractile activity. 5-HT4 receptor ligands were tested on electrical field stimulation (EFS)-induced contractions of human colonic muscle strips cut in the circular direction (called 'whole tissue' strips). Additionally, after incubation of tissues with [3H]-choline these compounds were tested on EFS-induced release of tritium in whole tissue strips and in 'isolated' CM strips, obtained by superficial cutting in the CM layer. Tetrodotoxin and atropine blocked EFS-induced contractions of whole tissue CM strips. Prucalopride (0.3 micromol L-1) evoked a heterogenous response on EFS-induced contraction, ranging from inhibition (most frequently observed) to enhancement. In the release experiments, EFS-induced tritium efflux was blocked by tetrodotoxin. Prucalopride increased EFS-induced tritium and [3H]-acetylcholine efflux in whole tissue and in isolated CM strips. All effects of prucalopride were antagonized by the selective 5-HT4 receptor antagonist GR113808. The results obtained indicate the presence of excitatory 5-HT4 receptors on cholinergic nerves within the CM of human colon.

N-Methyl-d-Aspartate Receptors Mediate Endogenous Opioid Release in Enteric Neurons After Abdominal Surgery. Patierno S, Zellalem W, Ho A, Parsons CG, Lloyd KC, Tonini M, Sternini C. Gastroenterology 2005 Jun;128(7):2009-19.
Background & Aims: We tested the hypothesis that N -methyl- d -aspartate (NMDA) receptors mediate surgery-induced opioid release in enteric neurons. Methods: We used mu opioid receptor (muOR) internalization as a measure of opioid release with immunohistochemistry and confocal microscopy. muOR internalization was quantified in enteric neurons from nondenervated and denervated ileal segments of guinea pig after abdominal laparotomy with and without pretreatment with NMDA-receptor antagonists acting at different recognition sites (+)-5-methyl-10, 11-dihydro-5H-dibenzo [a , b] cyclohepten-5, 10-imine (MK-801) or (D) 2-amino-5-phosphopenoic acid (AP-5) at .5, 1 mg/kg; 8-chloro-4-hydroxy-1-oxo-1, 2-dihydropyridazinol [4,5-]quinoline-5-oxide choline (MRZ 2/576) or 8-chloro-1, 4-dioxo-1,2,3,4-tetrahydropyridazinol [4,5-]quinoline choline salt (MRZ 2/596) at .3, 1 mg/kg, or with an antagonist for the alpha-amino-3-hydroxy-5-methyl-4-isoxazolepropionic acid (AMPA) receptors, 6-cyano-7-nitroquinoxaline-2, 3-dione (1, 3 mg/kg). To determine whether NMDA stimulation induces opioid release, (1) ilea were exposed to NMDA (100 mumol/L) and D-serine (10 mumol/L) with or without the antagonist MK-801 or AP-5 (50

mumol/L); and (2) neuromuscular preparations of the ileum were stimulated electrically (20 Hz, 20 min) with or without MK-801 or AP-5 (50 mumol/L). Results: muOR endocytosis induced by abdominal laparotomy was inhibited significantly by NMDA-receptor antagonists in nondenervated and denervated ileal segments, but not by the AMPA-receptor antagonist. muOR endocytosis in neurons exposed to NMDA or electrical stimulation was prevented by NMDA-R antagonists. Conclusions: Abdominal laparotomy evokes local release of glutamate that results in endogenous opioid release through the activation of peripheral NMDA receptors. This suggests an interaction between the glutamatergic and opioid systems in response to the noxious and perhaps mechanosensory stimulation of surgery.

A regenerative role for bone marrow following experimental colitis: contribution to neovasculogenesis and myofibroblasts.
Brittan M, Chance V, Elia G, Poulsom R, Alison MR, Macdonald TT, Wright NA. Gastroenterology 2005 Jun;128(7):1984-95.
Background & Aims: Bone marrow (BM) cells form differentiated adult lineages within nonhematopoietic tissues, with a heightened propensity with increasing regenerative pressure dictated by disease. We have previously shown that BM cells engraft into the gut and contribute substantially to the subepithelial intestinal myofibroblast population in the lamina propria. To investigate the reparative capacity of BM in inflammatory bowel disease (IBD), a well-established model of experimental colitis was used. Methods: Lethally irradiated female mice were rescued by a BM transplant from male donors. Colitis was induced 6 weeks posttransplantation by injection of trinitrobenzene sulfonic acid (TNBS), and tissues were analyzed 1-14 days later. Donor-derived cells were detected by in situ hybridization using a Y chromosome-specific probe, and their phenotype was determined by immunohistochemistry. Results: TNBS-induced colitis was manifest as patchy lesions that increased in severity between days 1 and 8, and the mucosa gradually regenerated between days 8 and 14. The contribution of BM to intestinal myofibroblasts was significantly increased in regions of colitis compared with noninflamed regions. Furthermore, BM-derived endothelial cells, pericytes, and vascular smooth muscle cells were frequently interspersed throughout blood vessels, suggesting that these cells facilitate angiogenesis in tissue repair, substantiated by a significant increase in the incidence of BM-derived vascular smooth muscle cells in colitic compared with noninflamed regions. Blood vessels formed entirely from BM-derived cells were also seen, suggesting a role for BM in neovasculogenesis. Conclusions: Our data show that BM contributes to multiple intestinal cell lineages in colitis, with an important function in tissue regeneration and vasculogenesis after injury.

3 – DIAGNOSTICS

A randomized double-blinded,sham-controlled trial of postpartum extracorporeal magnetic innervation to restore pelvic muscle strength in primiparous patients. Culligan P, Blackwell L, Murphy M, Ziegler C, Heit M. Am J Obstet Gynecol 2005;192:1578-82.
OBJECTIVE: The purpose of this study was to determine the effects of extracorporeal magnetic innervation (ExMI) on pelvic muscle strength of primiparous patients. STUDY DESIGN: Primigravid patients were randomized to receive either active or sham ExMI postpartum treatments for 8 weeks. The main outcome measure was pelvic muscle strength measured by perineometry at baseline (midtrimester), 6 weeks (before treatments), 14 weeks, 6 months, and 12 months postpartum. Mixed randomized-repeated measures ANOVA was used to analyze the mean perineometry values between the 2 groups and across all 5 time periods. RESULTS: Fifty-one patients enrolled, and 18 were lost to attrition. There were no differences in demographics or delivery characteristics between the active and sham groups. There was an overall time effect, $F(3,85) = 3.1$, $P = .049$, but no group, $F(1,31) = 0.007$, $P = .94$, or (group)(time) interaction, $F(3,85) = 1.8$, $P = .15$. CONCLUSION: We found no differences in pelvic muscle strength between patients receiving active or sham ExMI treatments in the early postpartum period.

A comparison of perineometer to brink score for assessment of pelvic floor muscle strength. Hundley AF, Wu JM, Visco AG. Am J Obstet Gynecol 2005 May;192(5):1583-91.
The Brink scale is a commonly used digital assessment of pelvic floor muscle strength. The Peritron perineometer, a compressible vaginal insert that records pressure in centimeters of water, offers an objective method for this evaluation. This study evaluates the inter- and intrarater reliability of perineometry measurements and correlates those values with Brink scores. STUDY DESIGN: Subjects were prospectively enrolled and underwent pelvic floor muscle strength assessment by 2 examiners each using a perineometer and the Brink scale. Perineometer measurements of maximum pressure, average pressure, and total duration were recorded for 3 consecutive pelvic floor muscle contractions (Kegels). The Brink assessment was performed by placing 2 fingers vaginally during a single Kegel contraction. Brink scores consisted of 3 separate 4-point rating scales for pressure, vertical finger displacement, and duration. The order of the examiners and the 2 assessment methods were randomized, and each examiner was blinded to the results

of the other. Pearson and Spearman correlation coefficients were used for analysis as appropriate. Repeated-measures analysis of variance was used to assess intrarater reliability between repeated perineometer measurements. RESULTS: One hundred women were consecutively enrolled and completed the study. Interrater reliability for the perineometer maximum squeeze pressure (r = 0.88) and baseline resting pressure (r = 0.78) was high. Maximum squeeze pressure correlation was unaffected by the presence or absence of estrogen (r = 0.89 versus r = 0.85), nulliparity versus parity (0.85 versus 0.88), or genital hiatus 4 or greater or less than 4 (r = 0.96 versus r = 0.86). Total Brink score and each individual submeasurement showed good correlations (total: r = 0.68; pressure: r = 0.68; displacement: r = 0.58; duration: r = 0.44). The correlation between maximum squeeze pressure and total Brink score during the first and second exams was good (r = 0.68 versus r = 0.71). For intrarater reliability, there were no significant differences among the 3 maximum squeeze pressures recorded during the first exam (P = .11), but for the second exam, the first squeeze was significantly stronger than the successive 2 (P = .009) attempts. CONCLUSION: Perineometer measurements of pelvic floor muscle contractions show very good inter- and intrarater reliability. The Brink total and pressure scores had a slightly lower interrater reliability. Variables such as estrogen status, parity, and genital hiatus did not appear to affect correlation. There was good correlation between the maximum perineometer pressure and the total Brink score, suggesting that these 2 methods of assessment have similar levels of reproducibility. Additionally, the perineometer demonstrated good short-term test-retest reliability.

Digital Rectal Examination is Barrier to Population-Based Prostate Cancer Screening. Nagler HM, Gerber EW, Homel P, Wagner JR, Norton J, Lebovitch S, Phillips JL. Urology 2005 May 25;.
OBJECTIVES: To determine whether use of the digital rectal examination (DRE) results in decreased participation in prostate cancer (PCa) screening, which, in turn, would result in lower detection. Population-based PCa screening includes prostate-specific antigen (PSA) measurement with or without a DRE. PSA and DRE screening provide greater sensitivity than PSA alone; however, the increased participation rate resulting from PSA-alone screening may result in a greater detection rate. METHODS: We performed a survey of 13,580 healthy men undergoing PSA-only population-based screening. In addition to the basic demographic information, the survey asked whether the participant would still be willing to participate in the screening if it included a DRE. We modeled the willingness to participate to assess the effect of PSA screening versus PSA and DRE screening on the basis of previously published data and our results. RESULTS: The results of our study indicated that only 78% of men would participate in screening that included both DRE and PSA. Thus, 7800 men of a theoretical population of 10,000 would participate in a screening that included both DRE and PSA. The positive screen rate (PSA >/= 4.0 ng/mL and/or abnormal DRE) would then have been 2013, with 472 PCa cases and 1540 negative biopsies. In the PSA-alone arm, all 10,000 men would have agreed to participate, and the positive screen rate (PSA >/= 4.0 ng/mL) would have been 1480, with 499 PCa cases and 980 negative biopsies. The PSA-alone arm would thus have detected 27 more cancers and performed 560 fewer negative biopsies. CONCLUSIONS: The results of our study have demonstrated that DRE is a significant barrier to participation in PCa screening. PSA plus DRE-based programs result in fewer cases of PCa detected, with a significant increase in negative biopsies. We, therefore, suggest that future mass screening efforts include only PSA determination and omit the DRE.

Can a baseline prostate specific antigen level identify men who will have lower urinary tract symptoms later in life? Carter HB, Landis P, Wright EJ, Parsons JK, Metter EJ. J Urol 2005 Jun;173(6):2040-3.
PURPOSE: We evaluated the relationship between baseline prostate specific antigen (PSA) and subsequent lower urinary tract symptom development during 3 decades in unselected men in the Baltimore Longitudinal Study of Aging. MATERIALS AND METHODS: Urinary questionnaires were used to evaluate lower urinary tract symptoms in 704 men during 3 decades. The number of repeat evaluations was 1 to 18. We divided subjects into age groups of younger than 50 and 50 to 69.9 years at the time of the first PSA evaluation. Subjects were divided into 3 PSA groups based on initial PSA below the 25th, 25th to 75th and above the 75th percentile. A mixed effects Poisson model was used to test whether there was a significant relationship between PSA grouping and symptom score with time. RESULTS: There was no statistically significant difference in symptom score distribution across PSA percentiles in men younger than 50 years (p = 0.87) or 50 to 69.9 years old (p = 0.59). When age was used as an independent variable in the model, there was no statistically significant relationship between baseline PSA and symptom score (p = 0.38). CONCLUSIONS: These data suggest that PSA is not a useful predictor of the development of lower urinary tract symptoms in unselected, asymptomatic men.

The repeatability of the 24-hour pad test. Karantanis E, Allen W, Stevermuer TL, Simons AM, O'Sullivan R, Moore KH. Int Urogynecol J Pelvic Floor Dysfunct 2005;16:63-8;
A prospective observational study was conducted in a tertiary urogynaecology unit in women with the

primary symptom of urinary incontinence to assess the repeatability of the 24-hour pad test. One hundred and eight women undertook seven 24-hour pad tests over 7 consecutive days together with 7 simultaneous fluid and activity charts. The results were analysed collectively and according to urodynamic subsets. Repeatability was assessed by repeated measures analysis of variance and univariate analysis of variance for each urodynamic diagnosis group (USI, mixed and no USI). Variation between pad test weights over the 7 days was low, supporting good repeatability. The number of days of pad testing required to approximate the 7-day average was 3 days. However, a single 24-hour pad test correlated highly with the 7-day average (r=0.881) and was considered sufficient to gauge leakage severity.

Paravaginal defects: a comparison of clinical examination and 2D/3D ultrasound imaging. Dietz HP, Pang S, Korda A, Benness C. Aust N Z J Obstet Gynaecol 2005 Jun;45(3):187-90.
Abstract Background: Paravaginal defects are often assumed to be the underlying anatomical abnormality in anterior compartment descent. Neither clinical examination nor ultrasound assessment are generally accepted diagnostic modalities. Aims: To compare clinical examination and translabial 3D ultrasound in the detection of such defects. Methods: Fifty-nine women without previous prolapse or incontinence surgery were seen prospectively. Clinical and ultrasound assessments were carried out in blinded fashion. 3D translabial ultrasound was undertaken after voiding and supine. Volumes were acquired at rest, on Valsalva and on levator contraction. Loss of paravaginal support ('tenting') in the axial plane was taken to signify paravaginal defects. Results: Paravaginal defects were reported clinically in 14 cases on the left (24%), 19 times on the right (32%). Two 3D ultrasound examinations did not yield satisfactory volumes, leaving 57 for analysis. Neither midsagittal nor coronal views yielded data that correlated with clinical assessments. In the axial plane there was absence of tenting at rest in 32/57 (57%) patients, but this did not correlate with clinical findings. Loss of tenting on Valsalva was observed less often (21/57, 37%) and was weakly associated with clinically observed lateral defects (P = 0.036). Conclusions: Pelvic floor ultrasound in midsagittal, axial or coronal planes does not correlate well with clinical assessment for paravaginal defects. This could be due to poor clinical assessment technique or limitations of the ultrasound method. On the other hand, paravaginal defects may be uncommon or clinically irrelevant. On present knowledge, the paravaginal defect has to be regarded as an unproven concept.

Biometry of the pubovisceral muscle and levator hiatus by three-dimensional pelvic floor ultrasound. Dietz HP, Shek C, Clarke B. Ultrasound Obstet Gynecol 2005; 25:580-5.
Until recently, magnetic resonance was the only imaging method capable of assessing the levator ani in vivo. Three-dimensional (3D) ultrasound has recently been shown to be able to demonstrate the pubovisceral muscle. The aim of this study was to define the anatomy of the levator hiatus in young nulliparous women with the help of 3D ultrasound. METHODS: In a prospective observational study, 52 nulligravid female Caucasian volunteers (aged 18-24 years) were assessed by two-dimensional (2D) and 3D translabial ultrasound after voiding whilst supine. Pelvic organ descent was assessed on Valsalva maneuver. Volumes were acquired at rest and on Valsalva maneuver, and biometric indices of the pubovisceral muscle and levator hiatus were determined in the axial and coronal planes. RESULTS: In the axial plane, average diameters of the pubovisceral muscle were 0.4-1.1 cm (mean 0.73 cm). Average area measurements were 7.59 (range, 3.96-11.9) cm2. The levator hiatus at rest varied from 3.26 to 5.84 (mean 4.5) cm in the sagittal direction, and from 2.76 to 4.8 (mean 3.75) cm in the coronal plane. The hiatus area at rest ranged from 6.34 to 18.06 (mean 11.25) cm(2) increasing to 14.05 (6.67-35.01) cm(2) on Valsalva maneuver (P = 0.009). There were significant correlations between pelvic organ mobility and hiatus area at rest (P = 0.018 to P < 0.001) and on Valsalva maneuver (all P < 0.001). CONCLUSIONS: Biometric indices of the pubovisceral muscle and levator hiatus can be determined by 3D ultrasound. Significant correlations exist between hiatal area and pelvic organ descent. These data provide support for the hypothesis that levator ani anatomy plays an independent role in determining pelvic organ support.

Electrophysiologic Anal Tests and Sacral Nerve Modulation. Pelliccioni G, Scarpino O. Dis Colon Rectum 2005 May 31;.

Interval faecal occult blood testing in a colonoscopy based screening programme detects additional pathology. Bampton PA, Sandford JJ, Cole SR, Smith A, Morcom J, Cadd B, Young GP. Gut 2005 Jun;54(6):803-6.
BACKGROUND: Colonoscopic based surveillance is recommended for patients at increased risk of colorectal cancer. The appropriate interval between surveillance colonoscopies remains in debate, as is the "miss rate" for colorectal cancer within such screening programmes. AIMS: The main aim of this study was to determine whether a one-off interval faecal occult blood test (FOBT) facilitates the detection of significant neoplasia within a colonoscopic based surveillance programme. Secondary aims were to determine if invitees were interested in participating in interval screening, and to determine whether interval lesions were

missed or whether they developed rapidly since the previous colonoscopy PATIENTS: Patients enrolled in a colonoscopic based screening programme due to a personal history of colorectal neoplasia or a significant family history. METHODS: Patients within the screening programme were invited to perform an immunochemical FOBT (Inform). A positive result was followed by colonoscopy; significant neoplasia was defined as colorectal cancer, adenomas either > or =10 mm or with a villous component, high grade dysplasia, or multiplicity (>/=3 adenomas). Participation rates were determined for age, sex, and socioeconomic subgroups. Colonoscopy recall databases were examined to determine the interval between previous colonoscopy and FOBT offer, and correlations between lesion characteristics and interval time were determined. RESULTS: A total of 785 of 1641 patients invited (47.8%) completed an Inform kit. A positive result was recorded for 57 (7.3%). Fifty two of the 57 test positive patients completed colonoscopy; 14 (1.8% of those completing the FOBT) had a significant neoplastic lesion. These consisted of six colorectal cancers and eight significant adenomas. CONCLUSIONS: A one off immunochemical faecal occult blood test within a colonoscopy based surveillance programme had a participation rate of nearly 50% and appeared to detect additional pathology, especially in patients with a past history of colonic neoplasia.

4 – PROLAPSES

Low risk of ureteral obstruction with "deep" (dorsal/posterior) uterosacral ligament suture placement for transvaginal apical suspension.

Aronson MP, Aronson PK, Howard AE, Morse AN, Baker SP, Young SB
Am J Obstet Gynecol 2005 May;192(5):1530-6.

OBJECTIVE: Transvaginal uterosacral ligament fixation (USLF), often called "high" USLF, is associated with a 1.0% to 10.9% ureteral obstruction rate. Anatomic relations and pelvic rotation with positioning imply "high" (cephalad) suture placement may bring sutures closer to the ureter. We examined the ureteral obstruction rate with a "deep" (dorsal/posterior) uterosacral ligament suture placement modification of a standard USLF procedure. STUDY DESIGN: At the University of Massachusetts and Tufts, 411 consecutive patients underwent Mayo culdoplasty utilizing > or = 3 uterosacral sutures placed "deep" bilaterally. Intraoperative cystoscopy was performed. RESULTS: One patient (0.24% [.01%-1.35%]) had ureteral obstruction attributable to USLF. Two had obstruction secondary to concomitant procedures. Compared with previous published series, the odds of ureteral injury secondary to USLF was 4.6 times lower (95% CI 2.31-9.24; P < .0001). CONCLUSION: Placement of USLF sutures "deep" (dorsal/posterior) increases the margin of safety for the ureter and, in this study, decreased the ureteral injury rate nearly 5-fold.

Pelvic Organ Support Study (POSST) and bowel symptoms: straining at stool is associated with perineal and anterior vaginal descent in a general gynecologic population. Kahn MA, Breitkopf CR, Valley MT, Woodman PJ, O'Boyle AL, Bland DI, Schaffer JI, Grady JJ, Swift SE. Am J Obstet Gynecol 2005 May;192(5):1516-22.

OBJECTIVE: The purpose of this study was to evaluate the association of constipation symptoms and anal incontinence with vaginal wall and pelvic organ descent in a general gynecologic population. STUDY DESIGN: In this multicenter, cross-sectional study, 1004 women attending routine gynecologic healthcare underwent pelvic organ prolapse quantification (POPQ) measurements, and were surveyed regarding anal incontinence, digitation, < 2 bowel movements (BMs)/week, and > 25% frequency of: straining, hard/lumpy stools, and incomplete emptying. Constipation scores reflected the sum of positive responses. Associations between POPQ measurements (Ba, C, Bp, gh+pb), constipation scores, and anal incontinence were evaluated using multivariable regression. RESULTS: Of 119 women with Bp > or = -1.00, 47% reported no constipation symptoms. Hard/lumpy stools (26%), incomplete emptying (24%), and straining (24%) were more prevalent; fewer women reported < 2 BMs/week (15%) or digitation (7%). Constipation scores were weakly correlated with Bp, gh+pb (both r < .1, P < .02). Women reporting > or = 2 symptoms had greater gh+pb measurements than women reporting 0 or 1 symptom (P = .03). Women with anal incontinence had greater gh+pb and gh values than women without anal incontinence (P < .01). POPQ measurements were regressed separately onto (1) total constipation scores, (2) dichotomized scores, and (3) individual symptoms, with BMI, age, number of vaginal deliveries (NVD), weight of largest vaginal delivery (WLVD), race, hysterectomy, study site, and income included as covariates. Total constipation scores and dichotomized scores were nonsignificant in all models. With regard to individual symptoms, straining at stool was significant in the models for Ba and gh+pb, with greater Ba and gh+pb measurements among strainers relative to nonstrainers. CONCLUSION: Most associations between bowel symptoms and vaginal or pelvic organ descent were weak. After controlling for important covariates, straining at stool remained associated with anterior vaginal wall and perineal descent.

Suburethral sling treatment of occult stress incontinence and intrinsic sphincter deficiency in women with severe vaginal prolapse of the anterior vs posterior/apical compartment. Clemons JL,

Aguilar VC, Sokol ER, Sung VW, Myers DL. Am J Obstet Gynecol 2005 May;192(5):1566-72.
The purpose of this study was to compare the efficacy of a Mersilene mesh suburethral sling for occult stress urinary incontinence (SUI) and intrinsic sphincter deficiency (ISD) in women with severe vaginal prolapse of the anterior compartment to the posterior/apical compartment. STUDY DESIGN: This was a retrospective study that compared women with stage or grade III/IV prolapse of the anterior compartment (group 1) with the posterior/apical compartment (group 2); both groups demonstrated occult SUI (leakage only with prolapse reduced) and ISD on urodynamics, and underwent concurrent pelvic reconstructive surgery. The sling was defined as efficacious if SUI was prevented in 85% of women and if obstructive symptoms (de novo or worsening urge incontinence, or urinary retention greater than 2 weeks) occurred in less than 10% of women. RESULTS: There were 39 women in group 1 and 25 women in group 2. There were no differences between women in group 1 or group 2 in preoperative demographics (except parity) or urodynamic findings. SUI cure rates were lower for group 1 than group 2, but this difference was not significant (87% vs 100%, P = .15). Rates of de novo or worsening urge incontinence (8% vs 4%, P = 1.00) and urinary retention (none occurred) were similar between groups. CONCLUSION: In women with severe vaginal prolapse, slings effectively treat occult SUI and ISD, whether associated with anterior or posterior/apical prolapse.

High Complication Rate Identified in Sacrocolpopexy Patients Attributed to Silicone Mesh. Govier FE, Kobashi KC, Kozlowski PM, Kuznetsov DD, Begley SJ, McGonigle KF, Muntz HG. Urology 2005 May 20;.
OBJECTIVES: To report on our experience using a preconfigured Y-shaped silicone-coated polyester mesh and polypropylene mesh for vaginal vault suspension. A variety of materials have been used for both open and laparoscopic sacrocolpopexy in the management of vaginal vault prolapse. Recently, a preconfigured Y-shaped silicone-coated polyester mesh was introduced to facilitate the vaginal cuff suspension to the sacrum. METHODS: We reviewed the data of 45 consecutive patients who underwent abdominal (n = 28) or laparoscopic (n = 17) sacrocolpopexy. Of the 45 patients, 21 underwent silicone mesh suspension of the vaginal cuff to the anterior sacrum, with a mean follow-up of 23 months (range 16 to 41). A comparative analysis was performed of 24 patients who underwent the same procedure with polypropylene mesh. RESULTS: Of the 21 patients in the silicone group, 5 (23.8%) have had a major complication (four vaginal mesh erosions and one mesh infection) after a median follow-up of 9.5 months (range 4 to 20). The presenting symptoms were persistent or new vaginal discharge and/or nonspecific pelvic pain. One patient underwent successful removal of the mesh transvaginally, but the rest required abdominal exploration. To date, the 24 patients who underwent vaginal cuff suspension with polypropylene mesh have had no vaginal mesh extrusions or infections, with a mean follow-up of 12 months (range 1 to 38). CONCLUSIONS: Silicone-coated polyester mesh has recently been associated with a high rate of vaginal erosion when used as a transvaginal suburethral sling. Our experience specifically with vaginal vault suspension corroborates this. We have abandoned the use of silicone mesh because of the unacceptably high extrusion rate and presently use polypropylene mesh.

Robotic-assisted pelvic organ prolapse surgery. Ayav A, Bresler L, Hubert J, Brunaud L, Boissel P. Surg Endosc 2005 Jun 13;.
This study describes technical aspect and short-term results of pelvic organ prolapse surgery using the da Vinci robotic system. METHODS: During a 1-year period, 18 consecutive patients with pelvic organ prolapse were operated on using the da-Vinci system. Clinical data were prospectively collected and analyzed. RESULTS: All but one procedure was successfully completed robotically (95%). Performed procedures were colpohysteropexy (n = 12), mesh rectopexy (n = 2), or sutured rectopexy combined with sigmoid resection (n = 4). Average setup time was 21 min and significantly decreased with experience. Mean operative time was 172 min (range, 45-280). There were no mortality and no specific morbidity due to the robotic approach. Mean hospital stay was 7 days. At 6 months, all patients were free of pelvic organ prolapse and stated that they were satisfied with anatomical and functional results. CONCLUSION: Our experience indicates that using the da-Vinci robotic system is feasible, safe, and effective for the treatment of pelvic organ prolapse.

Bowel, bladder and sexual function in women undergoing laparoscopic posterior compartment repair in the presence of apical or anterior compartment dysfunction. Thornton MJ, Lam A, King DW. Aust N Z J Obstet Gynaecol 2005 Jun;45(3):195-200.
Abstract Objective: The aim of the study was to analyse the functional outcome of women undergoing a laparoscopic posterior compartment repair in the presence of anterior or apical compartment dysfunction. Design: Prospective cohort study. Methods: Forty women, median age 65 years (41-78), with symptoms of genital prolapse 31 (78%), urinary dysfunction 32 (80%) and bowel dysfunction 40 (100%), underwent laparoscopic posterior compartment repair in conjunction with an anterior compartment repair. Pre-operative and postoperative bowel and bladder function was prospectively assessed with a Wexner continence score, Vienna constipation score and a urinary dysfunction score. Twenty-eight (70%) and 24 patients (60%) had pre-operative urodynamics and anorectal manometry. Post-operatively all women were also assessed with a

Watt's sexual dysfunction score and a linear analogue patient satisfaction score. Twelve women (30%) had postoperative anal manometry. Results: At 20 months median follow-up, 30 (97%), 20 (62%) and 12 (31%) women reported improvement in their prolapse, urinary and bowel symptoms, respectively. Post-operatively, one woman reported denovo faecal incontinence, four worsening obstructive defecation and three denovo urinary dysfunction. Nine women (35%) reported denovo dyspareunia. The mean time to clinical deterioration following surgery was 11 months. Bowel function improvement was the only factor to significantly correlate with postoperative patient satisfaction. Conclusion: The functional outcome of laparoscopic posterior compartment repair in the presence of anterior compartment dysfunction is disappointing. Preoperative counselling is important to ensure that patients have reasonable and realistic expectations from repair surgery, and an understanding that anatomical improvement might not be followed by long-term functional improvement.

Genital prolapse: a follow-up study assessing subjective and objective results five years or more after surgical intervention. Moghimi K, Valbo A. Eur J Obstet Gynecol Reprod Biol 2005 Jun 1;120(2):198-201.
BACKGROUND:: With few reports in the field, we wanted to assess the long-term outcome of vaginal repair by objective and subjective measures. METHODS:: One hundred and sixty-seven women underwent surgical repair during a five-year period from 1990. Five years or more after surgery, 93 women were interviewed and underwent a physical examination to evaluate the post-operative results. RESULTS:: Sixty-eight women (72%) stated that they were satisfied with the operative result. Five women (5.4%) had undergone relapse surgery. The examination revealed relapse in seven women (7.5%). Persistent sensation of vaginal pressure and heaviness was the most frequent symptom among those who were not satisfied with the operative result. The mean age was 67.8 years. The frequency of "de novo" urinary leakage post-operatively does not seem to exceed the expected development of leakage attributable to ageing in the population. CONCLUSIONS:: The results in this study reveals that the need for relapse surgery is twice the reported figure when thorough anatomical examination is performed. There is also a discrepancy between the anatomical findings and the subjective symptoms reported by the patient.

Repair of prolapse with vaginal sacrocolporectopexy: Technique and results. Kavallaris A, Kohler C, Diebolder H, Vercellino F, Krause N, Schneider A. Eur J Obstet Gynecol Reprod Biol 2005 Jun 8;.
OBJECTIVE:: Axis and support of the vagina can be restored by sacrocolporectopexy with preservation of coital function. We developed a new technique of transvaginal sacrocolporectopexy for patients with prolapse of uterus and vagina or prolapse of the vaginal vault. STUDY DESIGN:: During a 4-year period, 20 patients with vaginal vault prolapse and 83 patients with uterine and vaginal prolapse underwent transvaginal sacrocolporectopexy. Intra- and postoperative complications were recorded. After a mean follow-up period of 24 months (6-48), the result of surgery with respect to prolapse, incontinence, and sexuality was evaluated by patient interviews. RESULTS:: No serious perioperative complications occurred with the exception of one patient with bleeding from a presacral vein. Subjectively, 84 patients (82%) were cured of prolapse symptoms. One patient had recurrent grade II vault prolapse and four patients developed a grade II rectocele. Five patients developed urge incontinence grade I. One patient developed fecal incontinence. No patient had coital problems as a sequelae of sacrocolporectopexy. CONCLUSION:: Transvaginal sacrocolporectopexy is a safe procedure with a success rate comparable to sacrospinous fixation.

Surgical management of anterior vaginal wall prolapse: an evidencebased literature review. Maher C, Baessler K. Int Urogynecol J Pelvic Floor Dysfunct 2005 May 25;.
The aim of this review is to summarize the available literature on surgical management of anterior vaginal wall prolapse. A Medline search from 1966 to 2004 and a hand-search of conference proceedings of the International Continence Society and International Urogynecological Association from 2001 to 2004 were performed. The success rates for the anterior colporrhaphy vary widely between 37 and 100%. Augmentation with absorbable mesh (polyglactin) significantly increases the success rate for anterior vaginal wall prolapse. Abdominal sacrocolpopexy combined with paravaginal repair significantly reduced the risk for further cystocele surgery compared to anterior colporrhaphy and sacrospinous colpopexy. The abdominal and vaginal paravaginal repair have success rates between 76 and 100%, however, no randomized trials have been performed. There is currently no evidence to recommend the routine use of any graft in primary repairs, and possible improved anatomical out-comes have to be tempered against complications including mesh erosions, infections and dyspareunia.

Roles of estrogen receptor, progesterone receptor, p53 and p21 in pathogenesis of pelvic organ prolapse. Bai SW, Chung DJ, Yoon JM, Shin JS, Kim SK, Park KH. Int Urogynecol J Pelvic Floor Dysfunct 2005 May 25;.
The aim of this study is to compare the levels of estrogen receptor (ER), progesterone receptor (PR), p53

and p21 between pelvic organ prolapse (POP) and control groups in order to evaluate their roles in pathogenesis of POP, and to find out the relationship among these proteins. Through the year of 2002, uterosacral ligaments were obtained from 20 prolapsus and 24 non-prolapsus hysterectomized uteruses. ER, PR, p53, and p21 proteins were extracted by Western blot analysis and relative levels of proteins were compared by Student t-test and Pearson correlation coefficient. P value <0.05 was considered statistically significant. All patients were postmenopausal and had never taken hormone replacement therapy. ER, PR, p53, and p21 were significantly lower in the study than control group (p<0.0001). Positive correlations were found among all proteins in the prolapse group. Further researches are needed to elucidate the interrelationship among these proteins and their precise roles in pathogenesis of POP.

Pessary use in advanced pelvic organ prolapse. Powers K, Lazarou G, Wang A, Lacombe J, Bensinger G, Greston WM, Mikhail MS
Int Urogynecol J Pelvic Floor Dysfunct 2005 May 10;.
The objective of this study was to review our experience with pessary use for advanced pelvic organ prolapse. Charts of patients treated for Stage III and IV prolapse were reviewed. Comparisons were made between patients who tried or refused pessary use. A successful trial of pessary was defined by continued use; a failed trial was defined by a patient's discontinued use. Thirty-two patients tried a pessary; 45 refused. Patients who refused a pessary were younger, had lesser degree of prolapse, and more often had urinary incontinence. Most patients (62.5%) continued pessary use and avoided surgery. Unsuccessful trial of pessary resorting to surgery included four patients (33%) with unwillingness to maintain, three patients (25%) with inability to retain and two patients (17%) with vaginal erosion and/or discharge. Our findings suggest that pessary use is an acceptable first-line option for treatment of advanced pelvic organ prolapse.

Pelvic organ support in pregnancy and postpartum. O'Boyle AL, O'Boyle JD, Calhoun B, Davis GD. Int Urogynecol J Pelvic Floor Dysfunct 2005 Jan-Feb;16(1):69-72; discussion 72. Epub 2004 Jul 31.
The purpose of this study was to evaluate pelvic organ support during pregnancy and following delivery. This was a prospective observational study. Pelvic organ prolapse quantification (POPQ) examinations were performed during each trimester of pregnancy and in the postpartum. Statistical comparisons of POPQ stage and of the nine measurements comprising the POPQ between the different time intervals were made using Wilcoxon's signed rank and the paired t-test. Comparison of POPQ stage by mode of delivery was made using Fisher's exact test. One hundred thirty-five nulliparous women underwent 281 pelvic organ support evaluations. During both the third trimester and postpartum, POPQ stage was significantly higher compared to the first trimester (p<0.001). In the postpartum, POPQ stage was significantly higher in women delivered vaginally compared to women delivered by cesarean (p=0.02). In nulliparous pregnant women, POPQ stage appears to increase during pregnancy and does not change significantly following delivery. In the postpartum, POPQ stage may be higher in women delivered vaginally compared to women delivered by cesarean.

Laparoscopic and abdominal sacral colpopexies: a comparative cohort study. Paraiso MF, Walters MD, Rackley RR, Melek S, Hugney C. Am J Obstet Gynecol 2005 May;192(5):1752-8.
OBJECTIVE: This study was undertaken to compare laparoscopic and open sacral colpopexies for efficacy and safety. STUDY DESIGN: Charts were reviewed for 56 patients who underwent laparoscopic sacral colpopexy and 61 patients who underwent open sacral colpopexy. Demographic and hospital data, complications, and follow-up visits were reviewed. RESULTS: Mean follow-up was 13.5 +/- 12.1 months and 15.7 +/- 18.1 months in the laparoscopic and open groups, respectively. Mean operating time was significantly greater in the laparoscopic versus open cohort, 269 +/- 65 minutes and 218 +/- 60 minutes, respectively (P < .0001). Estimated blood loss (172 +/- 166 mL vs 234 +/- 149 mL; P = .04) and hospital stay (1.8 +/- 1.0 days vs 4.0 +/- 1.8 days; P < .0001) were significantly less in the laparoscopic group than the open group. Complication and reoperation rates were similar. CONCLUSION: Laparoscopic and open sacral colpopexies have comparable clinical outcomes. Although laparoscopic sacral colpopexy requires longer operating time, hospital stay is significantly decreased.

Suture erosion and wound dehiscence with permanent versus absorbable suture in reconstructive posterior vaginal surgery. Luck AM, Galvin SL, Theofrastous JP. Am J Obstet Gynecol 2005 May;192(5):1626-9.
OBJECTIVE: This study was undertaken to determine the incidence of wound disruption after reconstructive posterior vaginal surgery with braided permanent versus absorbable suture. STUDY DESIGN: A retrospective cohort study of women undergoing posterior vaginal surgery. Outcomes included suture erosion, wound dehiscence, and additional surgical procedures. RESULTS: Ninety-nine procedures were performed with permanent sutures, followed by 111 with absorbable sutures. There were no differences in demographics or comorbidities between patient groups. Suture erosion/wound dehiscence occurred in

31.3% of the permanent suture group versus 9% of the absorbable suture group (P = .003, odds ratio [OR] = 7.5, 95% CI 2-28). The need for additional surgical intervention was 16.1% among permanent suture group versus no patients with absorbable suture. Performing a concomitant anal sphincteroplasty with permanent sutures significantly increased the incidence of suture erosion (P = .003, OR = 4.7, 95%CI 1.7-13.3). CONCLUSION: Permanent sutures increase the incidence in wound disruption and the need for additional surgical intervention in posterior colporrhaphy and anal sphincteroplasty.

Levator contraction strength and genital hiatus as risk factors for recurrent pelvic organ prolapse. Vakili B, Zheng YT, Loesch H, Echols KT, Franco N, Chesson RR. Am J Obstet Gynecol 2005 May;192(5):1592-8.
OBJECTIVE: To correlate levator ani contraction strength and genital hiatus measurements with surgical failure in prolapse. STUDY DESIGN: This retrospective study involved chart review for documentation of levator contraction strength, genital hiatus measurement, and recurrent pelvic floor disorders in women who underwent surgery for prolapse. RESULTS: The recurrent prolapse rate was 34.6%. Median follow-up interval was 5 months. Diminished levator strength was associated with recurrent prolapse (35.8% versus 0%; P = .017). A genital hiatus 5 cm or greater was associated with recurrent prolapse (44.2% vs 27.8%; P = .034). Inability to contract the levator ani was associated with urinary incontinence (35.1% vs 18.8%; P = .023). Increasing levator contraction strength was associated with a decreased reoperation rate for pelvic floor disorders, whereas genital hiatus correlated best with recurrent prolapse. CONCLUSION: Diminished levator ani contraction strength and a widened genital hiatus correlate with an increase in surgical failures in the early postoperative period. These tools are useful for counseling a patient concerning surgery for prolapse.

Abdominal sacral colpopexy with allograft fascia lata: one-year outcomes. Flynn MK, Webster GD, Amundsen CL. Am J Obstet Gynecol 2005 May;192(5):1496-500.
OBJECTIVE: The purpose of this study was to assess 1-year outcomes of sacral colpopexy with the use of allograft fascia lata. STUDY DESIGN: Records of all subjects who underwent sacral colpopexy with allograft fascia lata from May 1, 2001, to April 30, 2003, were reviewed. Subjects underwent pre- and postoperative evaluation of prolapse with the pelvic organ prolapse quantification system. The Fisher's exact test was used to analyze the results. RESULTS: Allograft fascia lata was used for 24 colpopexies during this period. No significant intraoperative or postoperative complications or graft erosions occurred. Five subjects were lost to follow-up after 3 months. Analysis was performed on the remaining 19 subjects. Prolapse of stage 2 or more in compartments Aa, Ba, Ap, Bp, and C was preoperatively 50%, 74%, 78%, 84%, and 68% and postoperatively 11%, 16%, 21%, 26%, and 5%, respectively. CONCLUSION: Allograft fascia lata may be a suitable alternative to permanent mesh for sacral colpopexy, but longer-term outcomes and larger studies are needed.

Radiofrequency ablation and plication: a non-resectional therapy for advanced hemorrhoids. Gupta PJ. J Surg Res 2005;126(1):66-72.
BACKGROUND: Radio frequency ablation followed by plication of the hemorrhoidal mass for patients who would otherwise require hemorrhoidectomy is being practiced at our hospital since last 5 years. This procedure accomplishes hemorrhoidal symptom relief with far less post-operative pain and other complications as compared to various other types of hemorrhoidectomies. MATERIALS AND METHODS: A retrospective study of 1000 patients having grade III or grade IV hemorrhoids treated with the above technique over a period of 30 months is reported. A Ellman radiofrequency generator was used for ablation of the hemorrhoids. Follow-up record of these patients is presented. The post-operative outcome and procedure related complications are compared with conventional hemorrhoidectomy procedures. RESULTS: With this procedure, the post-defecation pain score reported was between 1 and 4 (VAS) in the first week, which subsided thereafter. There were 42% patients who had post-defecation bleeding in the first 10 days. There were 82% patients able to resume duties on the 6th post-operative day. Of these, 5% of the patients had post-operative urinary retention needing catheterization for a single time, and 18 patients required readmission for secondary bleeding. None of the patients complained of fecal incontinence, sepsis, or anal stenosis. In the subsequent follow-up at a mean of 19 months, 4% of the patients had residual skin tags, 3% of them had symptomatic anal papillae, and 2% developed recurrence of hemorrhoids. CONCLUSION: The combined procedure described above could be a feasible alternative for surgical treatment of hemorrhoids being quick and easy to perform. With this procedure, the hospital stay is short, post-operative pain is less, return to work is faster, and recurrence rate is low.

Correlation of Histology With Anorectal Function Following Stapled Hemorrhoidectomy. Kam MH, Mathur P, Peng XH, Seow-Choen F, Chew IW, Kumarasinghe MP. Dis Colon Rectum 2005 May 5;.
INTRODUCTION: The inadvertent removal of smooth muscle during the use of stapled hemorrhoidectomy

had raised concerns about its effects on postoperative anorectal function. We correlated the amount of smooth muscle removed with anorectal function in the early postoperative period. METHODS: Patients were assessed preoperatively with an Eypasch quality-of-life questionnaire and underwent anorectal manometry and physiology testing. This was followed by a similar examination at three months postoperatively. Patients were operated on by a single surgeon and the excised anorectal mucosa was sent for histologic examination. The amount of smooth muscle excised was expressed semiquantitatively as a percentage of the total tissue removed. RESULTS: Sixty-eight patients (33 males) were recruited prospectively, with median age of 44 years. Six patients were lost to follow-up. Removal of anal transitional zone did not increase the incidence of incontinence. Both median preoperative and postoperative continence scores were good. Only one patient had incontinence to gas as a result of the operation. Median preoperative and postoperative quality-of-life scores were 114 and 131, respectively, out of a total of 144, the higher postoperative scores showing an improvement. Correlation of quality-of-life scores and mean resting anal pressures with percentage of smooth muscle removed did not show any statistical significance. CONCLUSIONS: Some smooth muscle will invariably be excised in stapled hemorrhoidectomy but the amount of smooth muscle removed did not significantly affect the continence score, quality of life, or mean anal resting pressure after stapled hemorrhoidectomy. It remains a safe and preferred procedure for the treatment of hemorrhoids.

Local Anesthesia for Stapled Prolapsectomy in Day Surgery: Results of a Prospective Trial. Mariani P, Arrigoni G, Quartierini G, Dapri G, Leone S, Barabino M, Opocher E. Dis Colon Rectum 2005 May 3;.
PURPOSE: This article reports the results of a prospective trial of the feasibility of Longo's procedure under local anesthesia in day surgery. METHODS: From April 2002 to May 2003, 66 patients (42 males and 24 females) were enrolled in the study; the mean age was 47.5 (range, 23-65) years. Thirty-six patients (55 percent) had prolapsed third-degree hemorrhoids, while 30 (45 percent) had fourth-degree hemorrhoids. All patients were operated on under local infiltration of the anorectal region by injecting ropivacaine 7.5 mg/dl using a Quadrijet. During the surgical procedure, blood pressure and heart rate were always monitored and the level of pain was checked using a visual analog scale. Hospital discharge was programmed for 6:00 p.m. Any immediate complications, such as bleeding, urinary retention, or pain, were also recorded. RESULTS: It was possible to perform the procedure under local anesthesia in all patients, and the anesthesiologist did not need to intervene at any time. No vagal reaction was observed; the transient reduction of blood pressure and heart rate, which occurred in four patients (6 percent),was controlled with an analgesic drug. In 96 percent of the cases the mean intraoperative visual analog score was not higher than four. Fifty-six patients were discharged at 6:00 p.m., while only 10 percent required an overnight stay. CONCLUSIONS: The stapled prolapsectomy procedure is feasible and can be performed safely under local anesthesia and as day surgery. This procedure provides good pain control and results in a minimal number of complications.

Surgical management of hemorrhoids. (SSAT). J Gastrointest Surg 2005 Mar;9(3):455-6.

Prospective, Randomized Study: Proximate(R) PPH Stapler vs. LigaSure trade mark for Hemorrhoidal Surgery. Kraemer M, Parulava T, Roblick M, Duschka L, Muller-Lobeck H. Dis Colon Rectum 2005 May 31;.
PURPOSE: It has been shown that for hemorrhoidal surgery both LigaSuretrade mark and stapler cause less pain than diathermy or scissor dissection. This study has attempted to establish which of the less painful alternatives proves best in an unselected series of patients with hemorrhoidal disease. METHODS: Fifty patients were randomized to undergo stapling hemorrhoidopexy or LigaSuretrade mark hemorrhoidectomy. Parameters investigated were pain (primary parameter), patient satisfaction with treatment, and recovery of personal activity. Other factors investigated were operative result, ease of handling, analgesic requirements, and postoperative course. RESULTS: Both methods were found to be equivalent in all major aspects analyzed. Postoperative pain scores (P = 0.99), patient satisfaction (P = 1), and self-assessment of activity (P = 0.99) were almost identical in both groups of patients. Significant differences were found in none of the numerous factors investigated. CONCLUSION: Both methods can be used safely and without major disadvantage for the patient regardless of stage and extent of hemorrhoidal disease.

Comparison of laparoscopic and open surgery for total rectal prolapse. Demirbas S, Akin ML, Kalemoglu M, Ogun I, Celenk T. Surg Today 2005;35(6):446-52.
Total rectal prolapse is a devastating disorder causing constipation and anal incontinence. We compared open and laparoscopic surgical approaches in a limited series. METHODS: The subjects of this study were 23 patients who underwent laparoscopic procedures (LP group) and 17 patients who underwent open procedures (OP group) for rectal prolapse. We assessed the preoperative colonic transit time, postoperative pain scoring, pre- and postoperative anal functions, and changes in constipation and related symptoms. RESULTS: The median operation time was 140.8 min for the LP group and 113.1 min for the OP group (P = 0.037). The median postoperative hospital stay was 4.8 days after the LPs and 9.6 days after the OPs (P =

0.001). Less analgesia was needed in the early postoperative period after the LPs (P = 0.007). While more than 70% improvement in continence was seen in the patients who underwent OPs, it was about 85% in those who underwent LPs. Improvement in constipation and related symptoms were similar in both groups. More than 30% of patients still suffered from hard stools and other symptoms of constipation. The colonic transit times were reduced in about 50% of patients who had suffered constipation in both groups. There was no incidence of recurrence in the median follow-up period. CONCLUSION: Although transabdominal rectopexy has been performed conventionally for rectal prolapse for many years, laparoscopic rectopexy and laparoscopic resection rectopexy are associated with lower morbidity and less postoperative pain. We eliminated the total prolapse and cured incontinence in almost all patients, with a short hospital stay.

Rectal intussusception in symptomatic patients is different from that in asymptomatic volunteers. Dvorkin LS, Gladman MA, Epstein J, Scott SM, Williams NS, Lunniss PJ. Br J Surg 2005 May 16;.
BACKGROUND:: Rectal intussusception is a common finding at evacuation proctography in both symptomatic and asymptomatic individuals. Little information exists, however, as to whether intussusception morphology differs between patients with evacuatory dysfunction and healthy volunteers. METHODS:: Thirty patients (19 women; median age 44 (range 21-76) years) with disordered rectal evacuation, in whom an isolated intussusception was seen on proctography, were studied. Various morphological parameters were measured, and compared with those from 11 asymptomatic controls (six women; median age 30 (range 24-38) years) found, from 31 volunteers, to have rectal intussusception. Intussusceptum thickness greater than 3 mm was designated as full thickness. Intussuscepta impeding evacuation were deemed to be occluding. RESULTS:: Twenty-two patients had full-thickness intussusception, compared with two controls (P = 0.003). Intussusceptum thickness was significantly greater in the symptomatic group (anterior component: P = 0.004; posterior: P = 0.011). Twenty patients in the symptomatic group, but only three subjects in the control group, had a mechanically occluding intussusception (P = 0.043), although only three patients demonstrated evacuatory dynamics outside the normal range. CONCLUSION:: Rectal intussusception in patients with evacuatory dysfunction is more advanced morphologically than that seen in asymptomatic controls; it is predominantly full thickness in patients and mucosal in controls. However, caution is required when selecting patients for intervention based solely on radiological findings.

The "winged" circular anal dilator in stapled hemorrhoidopexy. Altomare D. Tech Coloproctol 2005 Apr;9(1):80; discussion 80.

Complications and recurrence after excision of rectal internal mucosal prolapse for obstructed defaecation. Pescatori M, Boffi F, Russo A, Zbar AP. Int J Colorectal Dis 2005 Jun 10;.
BACKGROUND: Rectal internal mucosal prolapse (RIMP) may cause obstructed defaecation and encouraging short-term results have been reported after its transanal excision. The objective of this retrospective study was to assess both clinical and functional outcome after this procedure alone for patients presenting with evacuatory difficulty. PATIENTS AND METHODS: Forty patients (30 females, mean age 54 years), all suffering from obstructed defaecation, underwent RIMP excision at our unit during the last 11 years. RIMP was of first degree in three patients, of second degree in 21, and of third degree in 16 with 28/40 cases (70%) having associated anorectal pathology. The operation was carried out by hand suture (submucosal excision, Sarles endorectal excision, or the Delorme mucosectomy) in 26 patients, by circular stapled prolapsectomy in nine patients, or by combined manual and stapled techniques in five cases. Proctoscopy was carried out after 2 months for all patients, with anorectal manometry in 30 patients. Patients were independently assessed by state-trait anxiety scales for attendant anxiety and depression. RESULTS: Eighteen patients (45%) had significant postoperative complications with a surgical reintervention rate of 32.5%. Overall, 21 patients (52%) reported recurrent constipation and of these 14 (65%) had recurrent RIMP; six patients were treated successfully by rubber-band ligation alone. Two patients (5%) experienced new onset faecal incontinence. The recurrence rate of RIMP was unaffected by the type of operation, being 53% after manual techniques and 48% after combined procedures. There was no difference between postoperative manometric values in patients presenting with recurrent RIMP or constipation compared with those without RIMP or constipation on follow-up. Forty-eight percent of the patients with both recurrent constipation plus RIMP had manometric evidence of non-relaxing puborectalis syndrome compared with 26% with RIMP but without constipation (P<0.05). Ten of the 14 patients (71%) with anxiety and/or depression complained of recurrent constipation after surgery compared with nine of the 26 patients (24%) with normal psychological profiles (P<0.01). Patients with a preoperative rectocele were more likely to suffer from recurrent constipation than those without rectocele (eight out of 15, 53.3% vs. seven out of 25, 28%; P<0.05). CONCLUSIONS: Primary excision of RIMP does not seem an effective treatment for obstructed defecation with predictive factors for an adverse outcome in terms of recurrence (RIMP and constipation) including the presence of preoperative non-relaxing puborectalis syndrome and a demonstrated anxiety or depression psychological profile. The technique of prolapsectomy does not seem to affect outcome.

Complications and reoperations in stapled anopexy: learning by doing. Jongen J, Bock JU, Peleikis HG, Eberstein A, Pfister K
Int J Colorectal Dis 2005 Jun 11;.
Although stapled anopexy for second and third degree hemorrhoids has been widely used since 1998, there are limited long-term data available. We performed an analysis of a prospectively accrued data set of all patients undergoing stapled anopexy in our practice from 1998 through August 2003. Patients were specifically assessed for early and late complications and long-term reoperation rates for anorectal pathology. We performed stapled anopexy in 654 patients (296 females) during the study period. Mean operation time was 21 min (5-70 min), and the postoperative stay was 3.6 days (1-13 days). Early postoperative complications: urinary retention, 42 patients (6.4%); fecal impaction, 18 (2.8%); postoperative hemorrhage, 26 (4.0%); thrombosed external hemorrhoid, four (0.6%); and fistula/abscess, nine (1.4%). Late postoperative complications: anastomotic dehiscence, 21 patients (3.2%); persistence of prolapse in three (0.5%); submucosal anastomotic cysts in four (0.6%); thrombosed external hemorrhoid in two (0.3%); skin tags in ten (1.5%); fissure in six (0.9%); proctitis in two (0.3%); and fecal incontinence in ten (1.5%). Reoperation was required in 50 patients (7.6%). Reoperation for complications within 30 days occurred in 42 patients (6.4%) for the following reasons: bleeding (23), dehiscence (five), thrombosed external hemorrhoid (three), fecal retention (two), fistula (three), fissure (five), and anal papilla (one). Reoperation for anorectal pathology after 30 days was required in 54 patients (8.3%) and was performed for the following: dehiscence/reprolapse (17), stenosis (two), submucous cyst (two), fistula (four), fissure (six), anal papilla (four), skin tags (five), persistent anal itching (five), and miscellaneous (seven). These data represent the largest series of patients with long-term follow-up following stapled anopexy and confirm that the operation is safe in experienced hands using appropriate patient selection. The early complication rate is low and similar to rates reported for excisional hemorrhoidectomy. Importantly, the procedure is associated with a low 3.4% rate of reoperation for persistence or recurrence of hemorrhoidal prolapse with good patient selection.

5 – RETENTIONS

Do subjective symptoms of obstructive voiding correlate with post-void residual urine volume in women? Al-Shahrani M, Lovatsis D. Int Urogynecol J Pelvic Floor Dysfunct 2005 Jan-Feb;16(1):12-4; discussion 14. Epub 2004 Jul 29.
The objective was to determine if symptoms of obstructive voiding correlate with post-void residual urine volume measured by catheterization. A cross-sectional study of 134 consecutive women referred to a tertiary urogynecology clinic was performed. Subjects were interviewed regarding three types of obstructive voiding symptoms: a sensation of incomplete emptying, straining to void, and slow urine stream. Post-void residual urine volume was measured by catheterization as the gold standard. Data for each symptom were analyzed using Cohen's kappa test, sensitivity, specificity, likelihood ratios for a positive of negative test, and positive and negative predictive values. A total of 11 out of 134 patients (8%) had a post-void residual volume greater than 100 ml. Of these 11, 1 had symptoms of incomplete emptying (9%), 1 had symptoms of straining to void (9%), and 2 had symptoms of slow urine stream (18%). Sensitivity, specificity, likelihood ratio for a positive symptom, likelihood ratio for a negative symptom, positive predictive value, negative predictive value, and Cohen's kappa, respectively, were 9%, 80%, 0.47, 1.13, 4%, 91%, and 0.05 for the symptom of incomplete emptying, 9%, 91%, 1.12, 1.0, 8%, 92%, and 0.01 for straining to void, and 18%, 89%, 1.6, 0.92, 13%, 92%, and 0.07 for the symptom of slow urine stream. It was concluded that symptoms of obstructive voiding do not correlate with measured post-void urine volume. In clinically important situations, these symptoms cannot substitute for measurement of post-void residual urine volume.

Symptoms of voiding dysfunction: what do they really mean? Dietz HP, Haylen BT. Int Urogynecol J Pelvic Floor Dysfunct 2005 Jan-Feb;16(1):52-5; discussion 55. Epub 2004 Aug 3.
Many women presenting with pelvic floor dysfunction will complain of voiding symptoms. This study examines the relationship between such symptoms and uroflowmetry parameters in 414 women with complaints of pelvic floor dysfunction who underwent free uroflowmetry with a weight transducer type flowmeter. Symptoms of voiding dysfunction were ascertained by interview, with symptoms rated positive if they occurred more than occasionally. Symptoms were correlated with maximum urine flow rate and maximum urine flow rate centiles: 356 women voided between 50 and 600 ml; these datasets were used for analysis. Average age was 57.4 years (range: 17-86). Symptoms of voiding dysfunction were common (62%): 26% of women described hesitancy, 28% a poor stream, 26% stop-start voiding, 15% straining to void, and 35% incomplete emptying/need to revoid. As a group, symptoms of voiding dysfunction were associated with reduced maximum urine flow rate centiles (28.1 vs 36.3, p= 0.011). The strength of the association varied markedly, with only hesitancy (p=0.002), poor stream (p<0.001), and stop-start voiding (p=0.014) reaching significance. Hesitancy, poor stream, and stop-start voiding were the only symptoms predictive of voiding impairment. Straining to void and the sensation of incomplete emptying or the need to

revoid were not associated with a significant reduction in maximum flow rate centiles.

Incidence and predictors of prolonged urinary retention after TVT with and without concurrent prolapse surgery. Sokol AI, Jelovsek JE, Walters MD, Paraiso MF, Barber MD. Am J Obstet Gynecol 2005 May;192(5):1537-43.
OBJECTIVES: The purpose of this study was to describe the time to adequate voiding, incidence of urinary retention, and predictors of voiding efficiency and urinary retention after tension-free vaginal tape (TVT) with and without concurrent prolapse surgery. STUDY DESIGN: Medical records of patients who underwent TVT between August 1999 and July 2003 were reviewed. Urinary retention was defined as the need for urethrolysis, urethral dilation, or postoperative catheterization for >6 weeks. Linear and logistic regression models were used to determine predictors of time to adequate voiding and urinary retention. RESULTS: Two hundred sixty-seven patients were available for analysis; 66% had concurrent prolapse repair, 4% had concurrent laparoscopically assisted vaginal hysterectomy (LAVH), and 30% had an isolated TVT. TVT with and without concurrent prolapse repair or LAVH were statistically similar with respect to median days to voiding (8 vs 5) and the rate of urinary retention (11.2% vs 11.3%). Overall, 4.9% underwent urethrolysis, 1.9% received urethral dilation, and 4.1% required prolonged catheterization. Increasing age, decreasing BMI, and postoperative urinary tract infection were independent predictors of time to adequate voiding. Previous history of incontinence surgery was the only independent predictor of urinary retention (Adjusted odds ratio [AOR] 2.96, 95%CI [1.17-7.06]). CONCLUSION: Concurrent prolapse surgery does not appear to significantly alter postoperative voiding efficiency or increase the risk of prolonged urinary retention compared with TVT alone.

Anterior Urethral Strictures: Etiology and Characteristics. Fenton AS, Morey AF, Aviles R, Garcia CR. Urology 2005 May 20;.
OBJECTIVES: To evaluate the etiology and characteristics of symptomatic anterior urethral strictures in a large series of men presenting for urologic treatment in an effort to determine the common themes that may influence possible prevention or treatment strategies. Many questions about the origin and features of contemporary anterior urethral stricture disease remain unanswered. METHODS: The records of 175 men with symptomatic anterior urethral strictures were reviewed. Data were entered both prospectively by careful patient questioning and retrospectively from detailed chart review. The stricture length, location, and cause were recorded from urologic presentation, before definitive treatment. Posterior strictures from pelvic fracture urethral disruption defects were excluded from this review. RESULTS: A total of 194 strictures were identified in 175 men. Most strictures were idiopathic (65 of 194, 34%) or iatrogenic (63 of 194, 32%); fewer were inflammatory (38 of 194, 20%) or traumatic (28 of 194, 14%). Most involved the bulbar urethra (n = 100, 52%). Pendulous strictures (mean 6.1 cm) were longer on average than those in the fossa navicularis (mean 2.6 cm) or bulb (mean 3.1 cm). Prolonged catheterization (n = 26) and transurethral surgery (n = 25) were common causes of iatrogenic strictures. CONCLUSIONS: Our results showed that idiopathic and iatrogenic strictures are surprisingly common. External trauma was a relatively uncommon cause of anterior urethral stricture disease overall. Unnecessary urethral catheterization and repeated urethral instrumentation should be avoided to prevent stricture formation or exacerbation. More study is necessary to determine the origin of anterior urethral stricture disease.

Nocturia in men with lower urinary tract symptoms is associated with both nocturnal polyuria and detrusor overactivity with positive response to ice water test. Hirayama A, Fujimoto K, Matsumoto Y, Hirao Y. Urology 2005 May 11;.
OBJECTIVES: To investigate whether detrusor overactivity (DO) and the response to the ice water test (IWT) influence nighttime urinary frequency in patients with lower urinary tract symptoms. METHODS: A total of 114 patients with lower urinary tract symptoms, who were older than 50 years, with an International Prostate Symptom Score 8 or more points and a quality of life index of 2 or greater, were evaluated by a 48-hour frequency-volume chart, free flowmetry, pressure flow study, and IWT. RESULTS: The DO-positive IWT responders had a significantly greater bladder outlet obstruction index than did the DO-positive IWT nonresponders and the DO-negative IWT nonresponders. The DO-positive IWT responders had significantly more frequent nocturia and smaller nighttime maximal and minimal voided volumes than did the DO-negative IWT nonresponders without any difference in the nocturnal voided volume. The patients with nocturia two or more times had a significantly larger nocturnal voided volume and smaller nighttime minimal voided volume than the patients with nocturia less than two times. The incidence of DO-positive IWT responders was significantly greater among the patients with nocturia three or more times than that among those with nocturia less than three times. In the multivariate logistic model, the nocturnal voided volume and nighttime minimal voided volume were independently associated with nocturia two or more times and the DO-positive IWT responders were independently associated with nocturia three or more times. CONCLUSIONS: Once high-grade bladder outlet obstruction induces C-fiber-related DO, it is strongly suggested that this process,

together with nocturnal polyuria, plays an important role in the consequent clinical manifestations of nocturia in patients with lower urinary tract symptoms.

Phenotypic variation in functional disorders of defecation. Bharucha AE, Fletcher JG, Seide B, Riederer SJ, Zinsmeister AR. Gastroenterology 2005 May;128(5):1199-210.
BACKGROUND & AIMS: Although obstructed defecation is generally attributed to pelvic floor dyssynergia, clinical observations suggest a wider spectrum of anorectal disturbances. Our aim was to characterize phenotypic variability in constipated patients by anorectal assessments. METHODS: Anal pressures, rectal balloon expulsion, rectal sensation, and pelvic floor structure (by endoanal magnetic resonance imaging) and motion (by dynamic magnetic resonance imaging) were assessed in 52 constipated women and 41 age-matched asymptomatic women. Phenotypes were characterized in patients by principal components analysis of these measurements. RESULTS: Among patients, 16 had a hypertensive anal sphincter, 41 had an abnormal rectal balloon expulsion test, and 20 had abnormal rectal sensation. Forty-nine patients (94%) had abnormal pelvic floor motion during evacuation and/or squeeze. After correcting for age and body mass index, 3 principal components explained 71% of variance between patients. These factors were weighted most strongly by perineal descent during evacuation (factor 1), anorectal location at rest (factor 2), and anal resting pressure (factor 3). Factors 1 and 3 discriminated between controls and patients. Compared with patients with normal (n = 23) or reduced (n = 18) perineal descent, patients with increased (n = 11) descent were more likely (P < or = .01) to be obese, have an anal resting pressure >90 mm Hg, and have a normal rectal balloon expulsion test result. CONCLUSIONS: These observations demonstrate that functional defecation disorders comprise a heterogeneous entity that can be subcharacterized by perineal descent during defecation, perineal location at rest, and anal resting pressure. Further studies are needed to ascertain if the phenotypes reflect differences in the natural history of these disorders.

Breath Methane Associated With Slow Colonic Transit Time in Children With Chronic Constipation. Soares AC, Lederman HM, Fagundes-Neto U, de Morais MB. J Clin Gastroenterol 2005 Jul;39(6):512-515.
OBJECTIVE:: This study analyzed the relationship between methane production and colonic transit time in children with chronic constipation. METHODOLOGY:: Forty children, from 3 to 13 years of age, suffering from chronic constipation were included. Methane production was defined when the breath methane concentration was greater than 3 ppm. The total and segmental colonic transit times were measured with radio-opaque markers. RESULTS:: Soiling was present in 34 (85.0%) of 40 patients with constipation. Methane production was present in 25 of 34 (73.5%) patients with constipation and soiling and only in 1 (16.7%) of 6 with constipation but without soiling (P = 0.014). The medians of total colonic transit time were 80.5 and 61.0 hours, respectively (P = 0.04), in methane and nonmethane producers. Segmental colonic transit times were 17.5 and 10.5 hours, respectively (P = 0.580), in right colon, 29.5 and 10.5 hours (P = 0.001), respectively, in left colon, and 31.5 and 27.0 hours (P = 0.202), respectively, in the rectosigmoid. By the sixth week of treatment, the reduction in the total colonic transit time was greater in patients who had become nonmethane producers. CONCLUSION:: The presence of breath methane in children with chronic constipation may suggest the possibility of prolonged colonic transit time.

6 – INCONTINENCES

Decreased anal sphincter lacerations associated with restrictive episiotomy use. Clemons JL, Towers GD, McClure GB, O'Boyle AL. Am J Obstet Gynecol 2005 May;192(5):1620-5.
OBJECTIVE: To determine whether restrictive episiotomy use was associated with decreases in anal sphincter lacerations and the risk of anal sphincter laceration attributable to episiotomy. STUDY DESIGN: This was a retrospective database study. Rates of episiotomy, anal sphincter laceration (third- or fourth-degree tear), and other confounding variables were compared among vaginal deliveries before (1999) and after (2002) restrictive episiotomy use was implemented at our institution. Logistic regression was used to estimate the odds ratio of anal sphincter laceration that was due to episiotomy and other variables. RESULTS: The episiotomy rate decreased 56% (37% to 17%, P < .001) between 1999 and 2002, whereas the anal sphincter laceration rate decreased 44% (9.7% to 5.4%, P < .001). There were no changes in age, race, nulliparity, prolonged second stage of labor, operative vaginal deliveries, birth weight, or macrosomia, although oxytocin use and epidural use decreased slightly (37% to 31%, P < .001, and 80% to 76%, P = .02, respectively). The adjusted odds ratio of anal sphincter laceration attributable to episiotomy decreased 55%, from 6.5 (95% CI: 3.8, 11.1) to 2.9 (95% CI: 1.7, 5.0), between 1999 and 2002. Conversely, the adjusted odds ratios of anal sphincter laceration attributable to the other independent risk factors all increased or remained the same: operative vaginal delivery, which increased from 4.4 (95% CI: 2.7, 6.9) to 6.3 (95% CI: 3.6 11.1); nulliparity, from 2.9 (95% CI: 1.8, 4.8) to 2.9 (95% CI: 1.4, 5.9); macrosomia, from 1.9 (95% CI: 1.1, 3.4) to 2.6 (95% CI: 1.3, 5.4); and prolonged second stage, from 2.0 (95% CI: 1.3, 3.0) to 2.1 (95% CI: 1.2, 3.7). CONCLUSION: With restrictive episiotomy use, the episiotomy rate, anal sphincter laceration rate,

and risk of anal sphincter laceration attributable to episiotomy were all reduced by approximately 50%.

Severe perineal lacerations in nulliparous women and episiotomy type. Aytan H, Tapisiz OL, Tuncay G, Avsar FA. Eur J Obstet Gynecol Reprod Biol 2005 Jun 8;.
OBJECTIVE:: To determine the patient-related factors associated with severe perineal lacerations in nulliparous women and to evaluate the effect of episiotomy type on the risk of severe perineal tears. STUDY DESIGN:: In all, 400 nulliparous women admitted in labor between June and December 2001 were prospectively enrolled. Maternal height, perineal length, fetal birth weight, fetal head circumference, and severe perineal lacerations (third and fourth degrees) were recorded. RESULTS:: The rate of severe perineal lacerations was 2% (8/400); 3% with midline, 1% with mediolateral groups. In patients with severe lacerations, perineal length was significantly ($p<0.001$) shorter and the head circumference of their babies in the midline significantly ($p<0.05$) greater than normal, and birth weights were also significantly ($p<0.05$) greater in the mediolateral group. A cut-off value for perineal length of 3.05cm was found for severe lacerations in the midline group. CONCLUSION: If episiotomy is to be performed, it must be borne in mind that patients with a perineal length of </=3cm have an elevated risk of severe perineal lacerations, and if clinical or ultrasound examination suggests that the fetal head is large, mediolateral episiotomy may be preferred. Otherwise, midline episiotomy must be considered.

Treatment of neurogenic detrusor overactivity in spinal cord injured patients by conditional electrical stimulation. Hansen J, Media S, Nohr M, Biering-Sorensen F, Sinkjaer T, Rijkhoff NJ. J Urol 2005 Jun;173(6):2035-9.
PURPOSE: The feasibility of automatic event driven electrical stimulation of the dorsal penile/clitoral nerve in the treatment of neurogenic detrusor overactivity (NDO) was evaluated in individuals with spinal cord injury. MATERIALS AND METHODS: The study included 2 women and 14 men older than 18 years with NDO, bladder capacity below 500 ml and complete or incomplete suprasacral spinal cord injury. Detrusor pressure (Pdet) was recorded during ordinary, natural bladder filling. In a similar subsequent recording Pdet was used to trigger electrical stimulation when pressure exceeded 10 cm H2O. RESULTS: Of the 16 patients enrolled in this study 13 had increased bladder capacity together with a storage pressure decrease as a result of automatic, event driven electrical stimulation. In 2 patients stimulation could not inhibit the first undesired contraction, leakage occurred and finally 1 could not tolerate stimulation. During stimulated filling Pdet never exceeded 55 cm H2O. Thus, storage pressure was sufficiently low to prevent kidney damage. An average bladder capacity increase of 53% was achieved. CONCLUSIONS: This study demonstrates the feasibility of automatic, event driven electrical stimulation in the treatment of NDO. Although the setup in this experiment is not suitable in a clinical setting, the treatment modality is promising and it warrants further investigation.

Routine symptom screening for postnatal urinary and anal incontinence in new mothers from a district. Bugg GJ, Hosker GL, Kiff ES. Int Urogynecol J Pelvic Floor Dysfunct 2005 May 13;.
Parous middle-aged women present with urinary and faecal incontinence and childbirth trauma is thought to be a causal factor. Both symptoms are common after childbirth but usually go under-reported. It has been suggested that new mothers are likely to benefit from routine symptom screening because by actively identifying symptomatic women they could then be helped to access continence services. The main objective of this study was to pilot a programme of routine symptom screening for postnatal urinary and anal incontinence in new mothers from a district general hospital. Self-completion questionnaires for both urinary and anal incontinence were sent by post to 442 primiparous women who had delivered consecutively 10 months previously in a district general hospital. Two hundred and seventy-five new mothers responded to the survey. Ninety-two women had new symptoms of incontinence at 10 months, 82 had urinary incontinence and 25 had anal incontinence. However, only six new mothers had discussed the problem with a health professional. Although nine women requested a hospital appointment none of the women attended the appointment arranged for them. The domain scores on both questionnaires were significantly less for symptomatic new mothers when compared to women with established symptoms of incontinence. The programme of screening successfully identified women with symptoms of incontinence. However, all of the symptomatic women declined a follow-up appointment at hospital which questions the benefits of routine screening 10 months after childbirth.

Anal incontinence in women presenting for gynecologic care: prevalence, risk factors, and impact upon quality of life. Boreham MK, Richter HE, Kenton KS, Nager CW, Gregory WT, Aronson MP, Vogt VY, McIntire DD, Schaffer JI. Am J Obstet Gynecol 2005 May;192(5):1637-42.
The purpose of this study was to estimate the prevalence and impact upon quality of life of anal incontinence (AI) in women aged 18 to 65. STUDY DESIGN: Consecutive women presenting for general gynecologic care were given a bowel function questionnaire. Women with AI were prompted to complete the Fecal Incontinence Severity Index (FISI) and Fecal Incontinence Quality of Life Scale (FIQL). RESULTS: The

cohort was composed of 457 women with a mean age of 39.9 +/- 11 years. AI prevalence was 28.4% (95% CI 24.4-32.8). After logistic regression, IBS (OR 3.22, 1.75-5.93), constipation (OR 2.11, 1.22-3.63), age (OR 1.05, 1.03-1.07), and BMI (OR 1.04, 1.01-1.08) remained significant risk factors. The mean FISI score was 20.4 +/- 12.4. Women with only flatal incontinence scored higher, and women with liquid loss scored lower on all 4 scales of the FIQL. CONCLUSION: AI is prevalent in women seeking benign gynecologic care, and liquid stool incontinence has the greatest impact upon quality of life.

Multicenter randomized clinical trial comparing surgery and collagen injections for treatment of female stress urinary incontinence. Corcos J, Collet JP, Shapiro S, Herschorn S, Radomski SB, Schick E, Gajewski JB, Benedetti A, MacRamallah E, Hyams B. Urology 2005 May;65(5):898-904.
OBJECTIVES: To compare, in a multicenter, randomized clinical trial, collagen injections versus surgery with regard to efficacy, quality of life, satisfaction, and complications. METHODS: Of 133 women with stress urinary incontinence, 66 were randomized to collagen injection and 67 to surgery (6 needle bladder neck suspensions, 19 Burch, and 29 slings). After randomization, 15 women refused their allocated treatment. "Intent-to-treat" and "per protocol" analyses were applied. Women assigned to collagen injection could receive up to three injections before it was considered a failure. A "top-up" injection was allowed within 3 months after cure. Success as the primary outcome at 12 months was defined as a dry 24-hour pad test (2.5 g or less of urine) after having received only the allocated intervention. RESULTS: The per protocol analysis showed that the success rate 12 months after collagen injections (53.1%) was much lower than that after surgery (72.2%). The difference was 19.1% (95% confidence interval -36.2% to -2%). The general and disease-specific quality-of-life scores measured by the Rand Medical Outcomes Study 36-item Health Survey and Incontinence Impact Questionnaire were similar in the two groups (P = 0.306). Women treated by surgery were, on average, more satisfied (79.6%) than those treated by collagen injection (67.2%), but the difference was not significant (P = 0.228). Finally, complications were less frequent and severe with collagen injection: 36 events in 23 subjects for collagen injection versus 84 events in 34 subjects for surgery (P = 0.03). CONCLUSIONS: One year after intervention, the success rate of collagen injection as a treatment for stress urinary incontinence was about 19% lower than that after surgery. This has to be tempered by the similar changes in quality of life and satisfaction in both groups and that the number and severity of complications were much greater after surgery than after collagen injection. The results of this study indicate that collagen injections might be a worthwhile alternative to surgery for the treatment of stress urinary incontinence.

Transobturator SAFYRE sling is as effective as the transvaginal procedure. Palma P, Riccetto C, Herrmann V, Dambros M, Thiel M, Bandiera S, Netto NR Jr. Int Urogynecol J Pelvic Floor Dysfunct 2005 May 12;.
Introduction: SAFYRE is a monofilament polypropylene mesh held between two self-anchoring silicone columns that associates universal approach with readjustability. This unique feature allows for comparing two different approaches, i.e., transvaginal and transobturator, using the same sling. Materials and methods: A total of 226 patients with clinical and urodynamic diagnosis of SUI underwent SAFYRE sling procedure, which was performed either by transvaginal (group 1; 126 patients) or transobturator approach (group 2; 100 patients). The mean age was 63 years, in group 1 and 61 years in group 2. Physical examination, stress and pad test and urodynamic assessment were performed before the surgery. Results: The average follow-up period was 18 months in group 1 and 14 months in group 2. There was no difference in cure rate in both groups. The mean operative time was longer (25 min) in group 1 than in group 2 (15 min) (P<0.05). Bladder injury was significative greater in transvaginal group [respectively, 12/126 (0%) versus 0/100 (0%)]. Postoperatively, 20.6% of the patients presented transient irritative voiding symptoms in group transvaginal group as opposed to 10% in transobturator group. Discussion: SAFYRE sling performed by transobturator approach is as effective as the transvaginal procedure. Fewer complications and less operative time were additional advantages of the transobturator approach.

Laparoscopic Artificial Urinary Sphincter in Women for Type III Incontinence: Preliminary Results. Ngninkeu BN, van Heugen G, di Gregorio M, Debie B, Evans A. Eur Urol 2005 Jun;47(6):793-7. Epub 2005 Jan 28.
To evaluate the feasibility by laparoscopy of the AMS 800 (American Medical Systems, Inc., Minnetonka, Minnesota) artificial urinary sphincter in women with type III incontinence. MATERIALS AND METHODS:: Four women with genuine stress incontinence due to intrinsic sphincter deficiency were operated by laparoscopy. Primary criterion was negative Marshall test. One patient had not undergone surgery, and we performed laparoscopic promonto-fixation in the same procedure. Two of the three remaining patients had previous TVT (tension-free vaginal tape) with complications regarding the perforation and erosion of bladder mucosa and urethra. Laparoscopic explantation of TVT was performed 3 months previously. In the last case, previous urethropexy and laparoscopic promonto-fixation in association with TVT were performed 10 years

and 1 year ago respectively. A modified surgical procedure was used to implant the AMS 800 through laparoscopic transperitoneal approach, with placement of the cuff around the bladder neck between the periurethral fascia and the vagina. RESULTS:: Mean age was 68.5 (50-79) years. Mean closure pressure was 24.5 (20-28) cm. Water. There was no erosion or extrusion. The only significant risk factor was previous surgery. The operative time was less than 3hours. The hospital stay was 8 days. The mean follow-up was 6 (3-13) months. Activation was done 6 to 8 weeks after implantation. Social continence (1 pad use with moderate leakage) and improvement of quality of life was reported in one patient. In this case the balloon was changed in order to obtain more pressure in the cuff. Resolution of incontinence was achieved in 3 patients. CONCLUSIONS:: The AMS 800 can be successfully implanted by laparoscopy to treat women with genuine stress incontinence, a low urethral closure pressure and negative Marshall test indicating severe intrinsic sphincter deficiency. A long term follow-up is warranted to determine the efficacy and durability of this procedure.

Elective cesarean section to prevent anal incontinence and brachial plexus injuries associated with macrosomia--a decision analysis. Culligan PJ, Myers JA, Goldberg RP, Blackwell L, Gohmann SF, Abell TD. Int Urogynecol J Pelvic Floor Dysfunct 2005 Jan-Feb;16(1):19-28; discussion 28. Epub 2004 Jul 29.
Our aim was to determine the cost-effectiveness of a policy of elective C-section for macrosomic infants to prevent maternal anal incontinence, urinary incontinence, and newborn brachial plexus injuries. We used a decision analytic model to compare the standard of care with a policy whereby all primigravid patients in the United States would undergo an ultrasound at 39 weeks gestation, followed by an elective C-section for any fetus estimated at > or =4500 g. The following clinical consequences were considered crucial to the analysis: brachial plexus injury to the newborn; maternal anal and urinary incontinence; emergency hysterectomy; hemorrhage requiring blood transfusion; and maternal mortality. Our outcome measures included (1) number of brachial plexus injuries or cases of incontinence averted, (2) incremental monetary cost per 100,000 deliveries, (3) expected quality of life of the mother and her child, and (4) "quality-adjusted life years" (QALY) associated with the two policies. For every 100,000 deliveries, the policy of elective C-section resulted in 16.6 fewer permanent brachial plexus injuries, 185.7 fewer cases of anal incontinence, and cost savings of $3,211,000. Therefore, this policy would prevent one case of anal incontinence for every 539 elective C-sections performed. The expected quality of life associated with the elective C-section policy was also greater (quality of life score 0.923 vs 0.917 on a scale from 0.0 to 1.0 and 53.6 QALY vs 53.2). A policy whereby primigravid patients in the United States have a 39 week ultrasound-estimated fetal weight followed by C-section for any fetuses > or =4500 g appears cost effective. However, the monetary costs in our analysis were sensitive to the probability estimates of urinary incontinence following C-section and vaginal delivery and the cost estimates for urinary incontinence, vaginal delivery, and C-section.

Incontinence After a Lateral Internal Sphincterotomy: Are We Underestimating It? Casillas S, Hull TL, Zutshi M, Trzcinski R, Bast JF, Xu M. Dis Colon Rectum 2005 May 2;.
PURPOSE: This study was designed to assess the long-term outcomes and quality of life of patients who have undergone a sphincterotomy for chronic anal fissure. METHODS: The medical records of patients who underwent this operation between 1992 and 2001 were reviewed. A questionnaire was mailed to assess their current status, along with the Fecal Incontinence Quality of Life and Fecal Incontinence Severity Index surveys. RESULTS: A total of 298 patients were identified (158 males; 53 percent; mean age, 46.9 years; mean follow-up, 4.3 years). Postal survey response was 62 percent. Recurrence of the fissure occurred in 17 patients (5.6 percent) of whom 9 (52 percent) were females. Significant factors that resulted in recurrence were initial sphincterotomy performed in the office and local anesthesia ($P < 0.001$). When comparing office records and response to the postal survey, significantly more patients had flatal incontinence than that recorded in their medical records ($P < 0.001$). Twenty-nine percent of females who had a vaginal delivery recorded problems with incontinence to flatus ($P = 0.04$). Temporary incontinence was reported in 31 percent of patients and persistent incontinence to gas occurred in 30 percent. Stool incontinence was not a significant finding. The overall quality-of-life scores were in the normal range, whereas the median Fecal Incontinence Severity Index score was 12. CONCLUSIONS: Recurrence after lateral internal sphincterotomy may be higher after local anesthesia or office procedure. Females who have two or more previous vaginal deliveries should be warned about possible flatal incontinence. Long-term flatal incontinence that is not reported to the caregiver may occur in up to one-third of patients and could be permanent.

Frequency of Persistent Anal Symptoms After First Instrumental Delivery. Mazouni C, Bretelle F, Battar S, Bonnier P, Gamerre M. Dis Colon Rectum 2005 May 17;.
This study was designed to evaluate persistent anal symptoms after first instrumental delivery beyond the postpartum period. METHODS: This prospective study was performed in a cohort of primiparas who underwent instrumental delivery from January 1, 2001 to September 30, 2002. Questionnaires for anal symptoms were completed in the maternity ward on the day after delivery and by mail or telephone up to 12

months after the end of the inclusion period. Symptoms of fecal incontinence (solid and/or liquid stool) and precursor symptoms (flatus incontinence, soiling, and/or fecal urgency) were recorded. RESULTS: Of the 212 females who completed the first questionnaire, 159 (75 percent) responded to the second. Overall, 8.8 percent of females had solid and/or liquid stool incontinence, 7.5 percent had involuntary flatus, 8.2 percent had symptoms of fecal urgency, and 24.5 percent experienced new anal symptoms, Of the five females with third-degree tears, none complained of anal incontinence. The only significant difference in delivery data between females who did and did not develop new anal symptoms was larger fetal head size in the new symptom group (96.4 vs. 93.9 mm, respectively; P < 0.05). CONCLUSIONS: Frequency of new anal symptoms other than incontinence beyond postpartum period is underestimated in primiparas after instrumental delivery. Only fetal head size was found to predict occurrence of persistent anal incompetence after instrumental delivery.

Sacral Nerve Stimulation Can Be Successful in Patients With Ultrasound Evidence of External Anal Sphincter Disruption.
Conaghan P, Farouk R. Dis Colon Rectum 2005 May 26;.
PURPOSE: This study was designed to determine whether patients with fecal incontinence and endoanal ultrasound evidence of anal sphincter disruption may be successfully treated by sacral nerve stimulation. METHODS: Five consecutive females with incontinence to solids and endoanal ultrasound evidence of anal sphincter disruption were treated by a two-week trial of sacral nerve stimulation. If successful, patients then proceeded to permanent sacral nerve stimulation implantation. RESULTS: Five patients, aged 34 to 56 years, were treated by temporary sacral nerve stimulation. Four had symptoms starting after childbirth. Two had previously had an anterior sphincter repair. After a two-week trial, three females reported full continence and an improvement in all aspects of their Rockwood fecal incontinence quality of life scores. These three females underwent permanent sacral nerve stimulation implantation. The remaining two patients reported no improvement and underwent dynamic graciloplasty or end colostomy respectively. CONCLUSIONS: Sacral nerve stimulation may successfully restore bowel continence in some patients with endoanal ultrasound evidence of a defect in their external anal sphincter.

The impact of occiput posterior fetal head position on the risk of anal sphincter injury in forceps-assisted vaginal deliveries. Benavides L, Wu JM, Hundley AF, Ivester TS, Visco AG. Am J Obstet Gynecol 2005 May;192(5):1702-6.
OBJECTIVE: A forceps-assisted vaginal delivery is a well-recognized risk factor for anal sphincter injury. Some studies have shown that occiput posterior (OP) fetal head position is also associated with an increased risk for third- or fourth-degree lacerations. The objective of this study was to assess whether OP position confers an incrementally increased risk for anal sphincter injury above that present with forceps deliveries. STUDY DESIGN: This was a retrospective cohort study of 588 singleton, cephalic, forceps-assisted vaginal deliveries performed at our institution between January 1996 and October 2003. Maternal demographics, labor and delivery characteristics, and neonatal factors were examined. Statistical analysis consisted of univariate statistics, Student t test, chi2, and logistic regression. RESULTS: The prevalence of occiput anterior (OA) and OP positions was 88.4% and 11.6%, respectively. The groups were similar in age, marital status, body mass index, use of epidural, frequency of inductions, episiotomies, and shoulder dystocias. The OA group had a higher frequency of rotational forceps (16.2% vs 5.9%, P = .03), greater birth weights (3304 +/- 526 g vs 3092 +/- 777 g, P = .004), and a larger percentage of white women (48.8% vs 34.3%, P = .04). Overall, 35% of forceps deliveries resulted in a third- or fourth-degree laceration. Anal sphincter injury occurred significantly more often in the OP group compared with the OA group (51.5% vs 32.9%, P = .003), giving an odds ratio of 2.2 (CI: 1.3-3.6). In a logistic regression model that controlled for occiput posterior position, maternal body mass index, race, length of second stage, episiotomy, birth weight, and rotational forceps, OP head position was 3.1 (CI: 1.6-6.2) times more likely to be associated with anal sphincter injury than OA head position. CONCLUSION: Forceps-assisted vaginal deliveries have been associated with a greater risk for anal sphincter injury. Within this population of forceps deliveries, an OP position further increases the risk of third- or fourth-degree lacerations when compared with an OA position.

Primary repair of obstetric anal sphincter laceration: a randomized trial of two surgical techniques. Garcia V, Rogers RG, Kim SS, Hall RJ, Kammerer-Doak DN. Am J Obstet Gynecol 2005 May;192(5):1697-701.
OBJECTIVE: This study was undertaken to compare surgical techniques for the primary repair of obstetric anal sphincter lacerations. STUDY DESIGN: Patients with complete third- or fourth-degree lacerations were recruited and randomly assigned to either an end-to-end or overlapping repair. Data collection included demographic data, obstetric history, and intrapartum events. Postpartum, women completed incontinence questionnaires and underwent physical and ultrasound examinations. To detect a 36% difference between groups with an alpha = .05 and beta = .20, 30 patients were required. Data were analyzed with Student t test

and chi2 analysis. RESULTS: Forty-one women were randomly assigned; 23 to an end-to-end and 18 to an overlapping repair. Twenty-seven percent of women underwent episiotomy and 61% operative vaginal delivery. Follow-up was limited to 26 of 41 patients. On physical examination, 3 patients had a separated anal sphincter. On ultrasound, overall 85% of patients had intact sphincters, with no difference between groups (all P > .05). Forty-two percent of women complained of anorectal symptoms with no differences between groups (all P > .28). CONCLUSION: We found no difference in anal incontinence symptoms, physical examination, or translabial ultrasonography findings between the 2 groups. Incontinence symptoms were common in both groups.

Rectal sensorimotor dysfunction in patients with urge faecal incontinence: evidence from prolonged manometric studies. Chan CL, Lunniss PJ, Wang D, Williams NS, Scott MS. Gut 2005 May 24;.
Although external anal sphincter dysfunction is the major cause of urge faecal incontinence, ~50% of such patients have evidence of rectal hypersensitivity, and report exaggerated stool frequency and urgency. The contribution of rectosigmoid contractile activity to the pathophysiology of this condition is unclear, and thus the relations between symptoms, rectal sensation and rectosigmoid motor function were investigated. METHODS: Fifty two consecutive patients with urge faecal incontinence, referred to a tertiary surgical centre, and 24 volunteers, underwent comprehensive anorectal physiological investigation, including prolonged rectosigmoid manometry. Patients were classified on the basis of balloon distension thresholds into those with rectal hypersensitivity (n=27) and those with normal rectal sensation (n=25). Automated quantitative analysis of overall rectosigmoid contractile activities, and specifically, high amplitude contractions and rectal motor complex activity was performed. RESULTS: External anal sphincter dysfunction was similar in both patient groups. Overall, phasic activity and high amplitude contraction frequency were greater, and rectal motor complex variables significantly altered, in those with rectal hypersensitivity. Symptoms, more prevalent in the rectal hypersensitivity group, were also more often associated with rectosigmoid contractile events. For individuals, reduced compliance and increased rectal motor complex frequency were only observed in patients with rectal hypersensitivity. CONCLUSIONS: We have identified a subset of patients with urge faecal incontinence, namely those with rectal hypersensitivity, who demonstrated increased symptoms, enhanced perception, reduced compliance, and exaggerated rectosigmoid motor activity. Comprehensive assessment of rectosigmoid sensorimotor function, in addition to evaluation of anal function, should be considered in the investigation of patients with urge faecal incontinence.

7 – PAIN

Pudendal neuralgia, a severe pain syndrome. Benson JT, Griffis K. Am J Obstet Gynecol 2005 May;192(5):1663-8.
OBJECTIVE: To describe the clinical and electrodiagnostic findings, therapies, and outcomes of patients with pudendal neuralgia. STUDY DESIGN: A retrospective, descriptive study of 64 patients from March 19 to December 22, 2003. RESULTS: Clinical findings included pain along nerve distribution (64, 100%), pain aggravated by sitting (62, 97%), pain relieved by standing or lying (57, 89%), and misdiagnosis (53, 83%). Neurophysiologic findings were normal (23, 35%), demyelination (17, 26%), axonal loss (5, 7.5%), and demyelination with axonal loss (21, 32%). Therapies were conservative (64, 100%), nerve injection (38, 59%), neuromodulation (2, 3%), and decompression surgery (10, 15%). Slight or moderate pain improvement with therapies included conservative (64, 100%), nerve injection (12, 31%), neuromodulation (2, 100%), and decompression (6, 60%). CONCLUSION: Pudendal neuralgia is poorly recognized and poorly treated. Improvement is gained with conservative therapy. Injections and decompression benefit one half and one third of patients, respectively. Neuromodulation needs further evaluation.

A model of neural cross-talk and irritation in the pelvis: implications for the overlap of chronic pelvic pain disorders. Pezzone MA, Liang R, Fraser MO. Gastroenterology 2005 Jun;128(7):1953-64.
Irritable bowel syndrome, interstitial cystitis, and other chronic pelvic pain (CPP) disorders often occur concomitantly. Neural cross-talk may play a role in the overlap of CPP disorders via the convergence of pelvic afferents. We investigated the hypothesis that afferent irritation of one pelvic organ may adversely influence and sensitize another via neural interactions. Methods: We measured pelvic organ smooth muscle and striated muscle reflexes during micturition and colorectal distention (CRD) in urethane-anesthetized rats. The effects of acute cystitis on distal colonic sensory thresholds to CRD and the effects of acute colonic irritation on micturition parameters were assessed. Results: External urethral sphincter (EUS) electromyography (EMG) was typical for the rat, with phasic firing during micturition. External anal sphincter EMG also showed phasic firing during micturition in synchrony with EUS activity but, in addition, showed both tonic bursts and phasic firing independent of EUS activity. Before bladder irritation, graded CRDs to 40 cm H 2 O produced no notable changes in abdominal wall EMG activity. Following acute bladder irritation, dramatic increases in abdominal wall EMG activity in response to CRD were observed at much lower

distention pressures, indicating colonic afferent sensitization. Analogously, following acute colonic irritation, bladder contraction frequency increased 66%, suggesting sensitization of lower urinary tract afferents. Conclusions: We report compelling evidence of bidirectional cross-sensitization of the colon and lower urinary tract in a novel experimental model. This cross-sensitization may account for the substantial overlap of CPP disorders; however, further studies are needed to fully characterize these pathways.

Psychophysical evidence of hypersensitivity in subjects with interstitial cystitis. Ness TJ, Powell-Boone T, Cannon R, Lloyd LK, Fillingim RB. J Urol 2005 Jun;173(6):1983-7.
PURPOSE: We quantified differences in somatic and visceral sensation in healthy subjects and subjects with interstitial cystitis (IC). MATERIALS AND METHODS: A total of 13 subjects with IC and 13 healthy subjects answered psychological questionnaires and underwent psychophysical testing of thermal and pressure thresholds for sensation as well as the ischemic forearm test of pain tolerance. A subset of subjects also underwent bladder sensory testing with the determination of 3 consecutive cystometrograms. Ratings of intensity and unpleasantness were determined. RESULTS: Subjects with IC were significantly more sensitive to deep tissue measures of sensation related to pressure, ischemia and bladder than healthy subjects. Cutaneous thermal pain measures were similar in the 2 groups. Psychological measures indicated higher reactivity in subjects with IC. CONCLUSIONS: Similar to other visceral pain disorders, such as irritable bowel syndrome, hypersensitivity to somatic stimuli was noted in subjects with IC. This suggests altered central mechanisms in the processing of sensory events from the bladder.

A prospective, randomized, placebo controlled, double-blind study of pelvic electromagnetic therapy for the treatment of chronic pelvic pain syndrome with 1 year of followup. Rowe E, Smith C, Laverick L, Elkabir J, Witherow RO, Patel A. J Urol 2005 Jun;173(6):2044-7.
PURPOSE: Male chronic pelvic pain syndrome is a condition of uncertain etiology and treatment is often unsatisfactory. There is evidence that the symptom complex may result from pelvic floor muscular dysfunction and/or neural hypersensitivity/inflammation. We hypothesized that the application of electromagnetic therapy may have a neuromodulating effect on pelvic floor spasm and neural hypersensitivity. MATERIALS AND METHODS: Following full Stamey localization men with National Institute of Diabetes and Digestive and Kidney Diseases category III prostatitis were prospectively randomized to receive active electromagnetic or placebo therapy. Active therapy consisted of 15 minutes of pelvic floor stimulation at a frequency of 10 Hz, followed by a further 15 minutes at 50 Hz, twice weekly for 4 weeks. Patients were evaluated at baseline, 3 months and 1 year after treatment using validated visual analog scores. RESULTS: A total of 21 men with a mean age of 47.8 years (range 25 to 67) were analyzed. Mean symptom scores decreased significantly in the actively treated group at 3 months and 1 year ($p < 0.05$), unlike the placebo group, which showed no significant change ($p > 0.05$). Subanalysis of those receiving active treatment showed that the greatest improvement was in pain related symptoms. CONCLUSIONS: The novel use of pelvic floor electromagnetic therapy may be a promising new noninvasive option for chronic pelvic pain syndrome in men.

Botulinum toxin a injection of the obturator internus muscle for chronic perineal pain. Gajraj NM. J Pain 2005 May;6(5):333-7.
Chronic perineal pain is often a difficult condition to manage. Current treatments include pudendal nerve injections and pudendal nerve release surgery. The obturator internus muscle has a close relationship to the pudendal nerve and might be a potential target for therapeutic intervention. PERSPECTIVE: A case is presented of refractory perineal pain that was successfully treated by injecting the obturator internus muscle with botulinum toxin A.

Musculoskeletal causes of chronic pelvic pain: a systematic review of diagnosis: part I. Tu FF, As-Sanie S, Steege JF. Obstet Gynecol Surv 2005 Jun;60(6):379-85.
Chronic pelvic pain in women has multifactorial etiology, but pelvic musculoskeletal dysfunction is not routinely evaluated as a cause by gynecologists. Whether diagnostic tests can reliably identify women with such conditions is unclear. The objective of this study was to determine the level of support in the literature for diagnostic tests of pelvic musculoskeletal problems. We used a set of key words pertaining to pain and the pelvic musculoskeletal structures to initially review the PUBMED database. Study inclusion was restricted to English-language publications that reported a patient-related chronic pelvic pain diagnostic test. Relevant bibliographies were also searched, and outside consultation with a pain researcher was sought to identify additional needed studies. For each selected article, 2 investigators separately summarized relevant data on study characteristics, patient profiles, and test efficacy. Discrepancies were resolved by discussion. Six diagnostic studies were identified that met entry criteria. No gold standard diagnostic tests exist for pelvic musculoskeletal problems, and the methodologic quality of available studies is low. Studies defining such clinically useful tests are needed to further refine a rational approach to chronic pelvic pain management.

LEARNING OBJECTIVES: After completion of this article, the reader should be able to describe the paucity of evidence-based literature and valid consensus of diagnostic criteria and modalities in defining the musculoskeletal causes of chronic pelvic pain in women, to recall that there is no gold standard diagnostic test for pelvic musculoskeletal problems, and to recall that the statistical evaluation of the methods described were wanting.

Intravesical heparin and peripheral neuromodulation on interstitial cystitis. Baykal K, Senkul T, Sen B, Karademir K, Adayener C, Erden D. Urol Int 2005;74(4):361-4.
INTRODUCTION: We wanted to evaluate the therapeutic effect of intravesical heparin and peripheral neuromodulation on patients with interstitial cystitis. MATERIALS AND METHODS: From March 2002 to August 2003, 8 female and 2 male subjects conform to the NIDDK criteria and not responsive to the previous conventional treatments were included in the study. Wisconsin pain scores, maximal cystometric capacities, and night and day voiding frequencies were determined and these studies were repeated in the 2nd and 12th months of the treatment with 10,000 units intravesical heparin and peripheral neuromodulation. Frequency of the treatment was once a week during first 8 weeks, once in 2 weeks in the following 8 weeks, and once in 3 weeks four times. Then, it was decreased to once a month. RESULTS: The mean follow-up period was 13 months (12-16 months). Day and night voiding frequency were significantly better in the 2nd and 12th months, when compared to pretreatment values. The Wisconsin pain scores were 62.5 +/- 13.9% and 62.8 +/- 15.2% in the 2nd and the 12th months, respectively. The average increase in the maximum cystometric capacity was 54.8 +/- 27.4% and 52.5 +/- 31.6% in the 2nd and the 12th months, respectively. CONCLUSIONS: Intravesical heparin and peripheral neuromodulation combination seems to be an alternative for patients with interstitial cystitis not responsive to other treatments.

Chronic Scrotal Pain Syndrome: Management among Urologists in Switzerland. Strebel RT, Leippold T, Luginbuehl T, Muentener M, Praz V, Hauri D. Eur Urol 2005 Jun;47(6):812-6. Epub 2005 Jan 18.
INTRODUCTION AND OBJECTIVES:: Management of patients presenting with chronic or recurrent pain located in the scrotum is often very challenging. Evidence-based literature and clinical practice guidelines for the management of chronic scrotal pain syndrome (CSPS) are not available. We assessed the current perception and management of chronic scrotal pain syndrome by urologists in Switzerland. METHODS:: In July 2004, all the members of the Swiss Society of Urology received a questionnaire focusing on diagnostic and treatment practices for the management of chronic scrotal pain syndrome. The questionnaire consisted of 6 topics concerning practice setting, incidence, aetiology, diagnostics, therapy and treatment success rate. RESULTS:: 103 questionnaires were completed (63%). All but 2 (2%) responding Swiss urologists see a mean of 6.5 new patients per month (range 1-30). 79% of Swiss urologists consider CSPS to be infectious or post-infectious in nature. Furthermore, a history of vasectomy, psychosomatic disorders, chronic prostatitis, neuromuscular disorders, a history of inguinal surgery, and idiopathic aetiology were mentioned in decreasing order. The most commonly used examinations are urinalysis in 96% and ultrasound in 93%. Additional assessments include blood sampling, duplex ultrasound, assessment for coexisting chronic prostatitis, and referral to an Orthopaedist, Rheumatologist or Psychiatrist. The predominant medication prescribed for CSPS is a non-steroidal anti-inflammatory agent given for a mean of 15.5 days. An antibiotic trial is prescribed by 82% for a mean of 20.5 days. 74% consider epididymectomy the treatment option of choice in recurrence. Inguinal orchiectomy is performed by 7%, microsurgical spermatic cord denervation is performed by 6% of surgeons. Mean estimated recurrence rate after conservative treatment is 48% and thus higher than after epididymectomy with 18%. CONCLUSIONS:: Chronic pain located in the scrotum is a common clinical condition in Switzerland. Most urologists consider an infection or post-infectious alterations as the predominant aetiology for CSPS. Consequently, an antibiotic trial in combination with an anti-inflammatory agent is prescribed as first-line therapy. Recurrence rates for conservative treatment are estimated high which is in contradiction to the presumed aetiology. Therefore, further evaluation of this poorly described disease complex is required.

Capsaicin for the treatment of vulvar vestibulitis. Steinberg AC, Oyama IA, Rejba AE, Kellogg-Spadt S, Whitmore KE. Am J Obstet Gynecol 2005 May;192(5):1549-53.
OBJECTIVE: The purpose of this study was to evaluate the use of local capsaicin cream as an effective treatment for patients with documented vulvar vestibulitis syndrome. STUDY DESIGN: A retrospective chart review was performed for patients who received a diagnosis of vulvar vestibulitis syndrome that was treated with capsaicin. Patients performed local application of capsaicin 0.025% cream for 20 minutes daily for 12 weeks. A comparison was made between the pre- and posttreatment Kaufman touch test to evaluate discomfort. The Marinoff dyspareunia scale was also used to assess pre- and posttreatment. RESULTS: The sum of the Kaufman touch test scores before the treatment (13.2 +/- 4.9) compared with the scores after treatment (4.8 +/- 3.8) was statistically improved (P < .001). A significant improvement was also observed at each individual site (P < .001). The Marinoff dyspareunia scale also showed a significant improvement (P <

.001). CONCLUSION: Vulvar vestibulitis syndrome that is treated with capsaicin significantly decreases discomfort and allows for more frequent sexual relations.

Vulvar vestibulitis syndrome: A review. Farage MA, Galask RP. Eur J Obstet Gynecol Reprod Biol 2005 May 28;.
Vulvar vestibulitis syndrome (VVS) is a perplexing disease involving pain limited to the vulvar vestibule without objective clinical findings to explain the symptoms. The condition impairs sexual function and creates significant psychological distress. Its cause is unknown, and few randomized studies exist on the efficacy of interventions. This article reviews disease characteristics, possible etiologies, and approaches to management.

Body mass index in endometriosis. Ferrero S, Anserini P, Remorgida V, Ragni N. Eur J Obstet Gynecol Reprod Biol 2005 Jun 8;.
OBJECTIVE:: Previous studies did not establish a clear correlation between the presence of endometriosis and the values of body mass index (BMI). STUDY DESIGN:: The BMI of 366 women with endometriosis was compared to that of 248 controls undergoing laparoscopy because of benign gynaecological conditions. Significant differences at univariate analyses were confirmed by using Analysis of covariance (ANCOVA) to control for potential confounding variables. RESULTS:: BMI was significantly lower in women with endometriosis than in controls ($p<0.001$); this difference was confirmed when the analysis was restricted to subjects with normal BMI (18.50-24.99kg/m(2)) ($p=0.002$). 4.8% of control subjects and no woman with endometriosis were obese. No significant difference was observed in the BMI of women with mild (revised classification of the American Fertility Society, rAFS I-II) and severe endometriosis (rAFS III-IV). CONCLUSION:: Women with endometriosis have lower BMI and are less frequently obese than control subjects. Further studies should investigate the physiopathological basis of decreased BMI in women with endometriosis.

Intravaginal electrical stimulation for the treatment of chronic pelvic pain. de Oliveira Bernardes N, Bahamondes L. J Reprod Med 2005 Apr;50(4):267-72.
OBJECTIVE: To evaluate the efficacy of intravaginal electrical stimulation in women with chronic pelvic pain (CPP). STUDY DESIGN: Between May 2002 and February 2004, 24 women with CPP with no apparent cause were evaluated. They underwent 10 sessions of intravaginal electrical stimulation. A program for measuring chronic diffuse pain, with a frequency of 8 Hz, variation in intensity and frequency, pulse length of 1 msec, and adjustment to the bearable intensity of each individual patient (in milliamps) was utilized. Treatment consisted of 30-minute applications, 2 or 3 times per week, and the pain was evaluated using a visual analog scale before and after each session and immediately after completion of the total treatment. The women were asked to evaluate the pain 2 weeks, 4 weeks and 7 months following the end of treatment. RESULTS: Intravaginal electrical stimulation was effective in alleviating pain in women with CPP, as evaluated at the end of treatment and 2 weeks, 4 weeks and 7 months after completion of treatment ($p<0.05$). There were significantly fewer complaints of dyspareunia following treatment ($p = 0.0005$). CONCLUSION: Intravaginal electrical stimulation is effective in the alleviation of pain in women with CPP.

Attenuation of the colorectal reflex in female patients with irritable bowel syndrome. Ng C, Danta M, Kellow J, Badcock CA, Hansen R, Malcolm A. Am J Physiol Gastrointest Liver Physiol 2005 May 19;.
Background & Aims Alterations in normal intestino-intestinal reflexes may be important contributors to the pathophysiology of irritable bowel syndrome (IBS). Aim: To compare the rectal tonic responses to colonic distension in female IBS patients with predominant constipation (IBS-C) and with predominant diarrhea (IBS-D) to those in healthy females, fasting and postprandially. Methods Design: Using a dual barostat assembly, two-minute colonic phasic distensions were performed during fasting and postprandially. Rectal tone was recorded before, during and after the phasic distension. Colonic compliance, and colonic sensitivity in response to the distension, were also evaluated fasting and postprandially. Participants: 8 IBS-C patients, 8 IBS-D patients and 8 age and sex-matched healthy subjects (N). Results The fasting increments in rectal tone in response to colonic distension in both IBS-C (rectal balloon volume change -4.6+/-6.1 ml) and IBS-D (-7.9+/-4.9 ml) were significantly reduced when compared to N (-34+/-9.7 ml, $p=0.01$). Similar findings were observed postprandially ($p=0.02$). When adjusted for the colonic compliance of individual subjects, the degree of attenuation in the rectal tonic response in IBS compared to N was maintained (fasting $p=0.007$; postprandial $p=0.03$). When adjusted for colonic sensitivity there was a trend for the attenuation in the rectal tonic response in IBS compared to N to be maintained (fasting $p=0.07$, postprandial $p=0.0$ Conclusion IBS patients display a definite attenuation of the normal increase in rectal tone in response to colonic distension ('colorectal reflex'), fasting and postprandially. Alterations in colonic compliance and sensitivity in IBS are not likely to contribute to such attenuation.

Rectocolonic Excitatory Reflex or Rectocolonic Inhibitory Reflex? Shafik A. Dis Colon Rectum 2005 May 26;.

Increased placebo analgesia over time in irritable bowel syndrome (IBS) patients is associated with desire and expectation but not endogenous opioid mechanisms. Vase L, Robinson ME, Verne GN, Price DD. Pain 2005 Jun;115(3):338-47.
A study was conducted to determine whether changes in expected pain levels, desire for pain relief, or anxiety contribute to an increase in placebo analgesia over time as well as to determine whether placebo analgesic effects of IBS patients are related to endogenous opioid mechanisms. Twenty-six women with IBS were exposed to rectal stimulation (35 or 55mmHg for 30s) and tested under natural history (NH), rectal placebo (RP) and rectal lidocaine (RL) conditions. During all conditions, 16 patients were given saline intravenously (to test for a placebo effect) and 10 patients were given naloxone intravenously (to test naloxone antagonism of the placebo effect) on a double blind basis. Patients rated expected pain level, desire for pain relief and anxiety at 2 and 22min after the onset of NH, RP, and RL conditions and they rated actual pain intensity at 5-min intervals for 40min. There was a large and significant placebo effect ($P<0.001$) that increased over time. Ratings of expected pain levels, desire for pain relief and anxiety decreased over time and contributed to more variance in placebo and lidocaine responses during the last half of the session. These changes suggest that a reduction in negative emotions may be central to placebo effects. There was no significant difference between psychological mediators (desire, expectation, anxiety) or the placebo effect in the saline and naloxone groups, indicating that neither the psychological mediators nor the placebo analgesic effect were associated with endogenous opioids in this clinically related paradigm.

The placebo effect in irritable bowel syndrome trials: a meta-analysis. Patel SM, Stason WB, Legedza A, Ock SM, Kaptchuk TJ, Conboy L, Canenguez K, Park JK, Kelly E, Jacobson E, Kerr CE, Lembo AJ. Neurogastroenterol Motil 2005 Jun;17(3):332-40.
BACKGROUND: Despite the apparent high placebo response rate in randomized placebo-controlled trials (RCT) of patients with irritable bowel syndrome (IBS), little is known about the variability and predictors of this response. OBJECTIVES: To describe the magnitude of response in placebo arms of IBS clinical trials and to identify which factors predict the variability of the placebo response. METHODS: We performed a meta-analysis of published, English language, RCT with 20 or more IBS patients who were treated for at least 2 weeks. This analysis is limited to studies that assessed global response (improvement in overall symptoms). The variables considered as potential placebo modifiers were study design, study duration, use of a run-in phase, Jadad score, entry criteria, number of office visits, number of office visits/study duration, use of diagnostic testing, gender, age and type of medication studied. FINDINGS: Forty-five placebo-controlled RCTs met the inclusion criteria. The placebo response ranged from 16.0 to 71.4% with a population-weighted average of 40.2%, 95% CI (35.9-44.4). Significant associations with lower placebo response rates were fulfillment of the Rome criteria for study entry ($P=0.049$) and an increased number of office visits ($P=0.026$). CONCLUSIONS: Placebo effects in IBS clinical trials measuring a global outcome are highly variable. Entry criteria and number of office visits are significant predictors of the placebo response. More stringent entry criteria and an increased number of office visits appear to independently decrease the placebo response.

The placebo response in functional bowel disorders: perspectives and putative mechanisms. Enck P, Klosterhalfen S. Neurogastroenterol Motil 2005 Jun;17(3):325-31.
The nature and determinants of the placebo response are widely unknown, as are the underlying psychological and biological mechanisms. High placebo response rates in functional bowel disorders (functional dyspepsia, irritable bowel syndrome) are similar to those in non-intestinal diseases (depression, pain, Parkinson's disease) and not too dissimilar to other organic gastrointestinal diseases (duodenal ulcer, inflammatory bowel diseases). Methodological reasons (regression to the mean, shift in signal detection through manipulation of expectations) and psycho-biological mechanisms (Pavlovian conditioning of biological processes) are proposed to explain a large component of the response variance in clinical trials. Psychobiological mechanisms of the placebo response in functional and organic diseases can also be identified in brain function studies (such as imaging).

Are cardiac syndrome X, irritable bowel syndrome and reflex sympathetic dystrophy examples of lateral medullary ischaemic syndromes? Syme P. Med Hypotheses 2005;65(1):145-8.
Altered pain appreciation and autonomic function are hallmarks of Cardiac syndrome X, Irritable bowel syndrome and Reflex sympathetic dystrophy. Both pain appreciation and autonomic function are controlled by the lateral medulla. This hypothesis proposes that lateral medullary ischaemia at a microvascular level is responsible for these syndromes and could also be linked to other conditions where autonomic dysfunction is a major feature such as late-onset asthma, type 2 diabetes and essential hypertension. Autonomic function

is controlled by the nucleus tractus solitarius, which acts as the main viscero-afferent nucleus in the brain stem regulating vagal tone. It is particularly susceptible to ischaemia since it is highly metabolically active and lies in a medullary arterial watershed zone. The anatomical route of the vertebral artery through cervical vertebra makes it vulnerable to injury from whiplash with or without any genetic predisposition to atheroma formation. This could make microvascular occlusion commonplace and a plausible explanation for the above syndromes. Ischaemia rather than infarction occurs because of the excellent collateral blood supply in the brainstem. In support of this hypothesis, a new Transcranial doppler ultrasonography arterial signal has been described called small vessel knock, the ultrasound signal of small vessel occlusion. Recent evidence has shown that ultrasound targeting of this signal in the vertebral artery improves clinical symptoms in these syndromes which supports this hypothesis. Two such cases are discussed.

Will corticosteroids and other anti-inflammatory agents be effective for diarrhea-predominant irritable bowel syndrome? Crentsil V. Med Hypotheses 2005;65(1):97-102.
Irritable bowel syndrome (IBS) is one of several functional gastrointestinal disorders commonly encountered in both the clinical setting and the general population. The biopsychosocial model is currently believed to be a more complete explanatory mechanism of IBS symptom genesis and propagation. Gut inflammation and immune activation is one of the biological mechanisms for which evidence is emerging. Experimental parasitic infection of mice bowel resulted in elevated substance P levels and increased expression of cyclooxygenase 2 (COX 2) enzyme, prostaglandin E(2), IL-4, IL-5, and IL-13. In IBS patients, increased cellularity and proximity of the inflammatory or immune cells to the nerve trunks of the bowel, elevated interleukin-1beta mRNA expression in mucosal biopsies, and increased inducible nitric oxide synthase and nitrotyrosine elaboration (indicative of lymphocyte activation) were observed. Corticosteroids given after the elimination of an experimentally applied parasite from the bowel of mice resulted in the reversal of persistent gut muscle dysfunction. Selective COX-2 inhibitors attenuated the increased bowel smooth muscle contractility resulting from parasite infection of mice gut. In humans, it has been observed that the relative risk of developing IBS in asthma patients was reduced by 60% by the use of oral steroids. Despite such preclinical and human evidence for the role of inflammation and immune activation in IBS, the efficacy of anti-inflammatory and immunomodulatory agents has not been adequately investigated. Budesonide, a corticosteroid with a high mucosal activity and a low bioavailability, is an anti-inflammatory agent that may be worth investigating for its utility in diarrhea-predominant IBS.

Genetic influences in irritable bowel syndrome: a twin study. Mohammed I, Cherkas LF, Riley SA, Spector TD, Trudgill NJ. Am J Gastroenterol 2005 Jun;100(6):1340-4.
BACKGROUND: Aggregation of symptoms of abdominal pain or bowel disturbance has been described in the families of patients with irritable bowel syndrome (IBS). This may be due to environmental factors, including learned responses to abdominal symptoms or a genetic contribution to the etiology of IBS. OBJECTIVES: To determine the relative contribution of genetic factors to IBS by evaluating IBS symptoms in monozygotic (MZ) and dizygotic (DZ) twins. METHODS: A total of 4,480 unselected twin pairs identified from a national volunteer twin register were asked to complete a validated questionnaire. IBS was defined by the Rome II criteria. RESULTS: A total of 5,032 subjects replied (56% response rate). One thousand eight hundred seventy complete twin pairs were evaluable; 888 MZ pairs (82 male pairs, mean age 51, SD 13 (range 19-81) yr) and 982 DZ pairs (69 male pairs, age 52, SD 13 (20-82) yr). The prevalence of IBS was 17% in MZ and 16% in DZ twins. There was no significant difference in casewise concordance rates between the MZ and DZ twins (28%vs 27%, p= NS). Logistic regression analysis revealed that decreasing age and increasing psychosomatic score were independently associated with IBS. Multifactorial liability threshold modeling suggested that a combination of unique and shared environmental factors provided the best model for IBS. In contrast, somatization was shown to be moderately heritable. CONCLUSION: Genetic factors are of little or no influence on IBS where the predominant influences appear to be environmental. (

Functional GI Disorders: What's in a Name? Drossman DA. Gastroenterology 2005 Jun;128(7):1771-2.

8 – FISTULAE
Treatment of perineal suppurative processes. (SSAT). J Gastrointest Surg 2005 Mar;9(3):457-9.

Idiopathic necrotizing fasciitis: risk factors and strategies for management. Taviloglu K, Cabioglu N, Cagatay A, Yanar H, Ertekin C, Baspinar I, Ozsut H, Guloglu R. Am Surg 2005 Apr;71(4):315-20.
The prognosis of necrotizing fasciitis (NF) depends on early diagnosis and management. Idiopathic NF may be more challenging, because it occurs in the absence of a known causative factor. Therefore, our purpose in this study was to identify the distinct features of idiopathic NF that may be important in early recognition of this disease and determine the factors associated with mortality. A retrospective chart review was performed in patients with a diagnosis of NF between 1988 and 2003. Patients were classified as idiopathic and

secondary NF, and data were analyzed in terms of etiological and predisposing factors, causative microbiological organisms, and clinical outcome. The study included 98 patients, 63 men and 35 women, with a diagnosis of NF. The median age was 55.5 years (range, 13 - 80). Idiopathic NF occurred in 60 of 98 patients (61%). The principal anatomic sites of infection for NF were perineal localisation in 55 patients (66%) and extremities in 31 patients (32%). Characteristics that distinguish patients with idiopathic NF from secondary NF were as follows: age older than 55 years (P = 0.0001), presence of comorbid illnesses like DM (P = 0.007) or chronic renal failure (P = 0.041), and perineal localization (P = 0.008). By logistic regression analysis, independent risk factors for idiopathic NF remained age > 55 years and perineal localization as statistically significant factors, when all the significant variables found in univariate analysis were included in the model. The majority of patients (82%) had polymicrobial infections. The mortality rate was 35 per cent. All patients were treated with radical surgical debridement and a combination of antibiotics. Female gender, presence of malignant disease, and diabetes mellitus (DM) were found to be associated with increased mortality as independent factors in logistic regression analysis, when all of these three factors were included in the model. Understanding the distinct clinical characteristics and the factors associated with mortality in patients with NF may lead to rapid diagnosis and improve the survival rates. Therefore, idiopathic NF is a crucial entity that requires serious suspicion for its diagnosis.

Hyperbaric oxygen for the treatment of Fournier's gangrene. Mindrup SR, Kealey GP, Fallon B. J Urol 2005 Jun;173(6):1975-7.
Fournier's gangrene is a necrotizing fasciitis of the genitalia that is associated with high morbidity and mortality. Groups at many institutions have initiated routine adjuvant hyperbaric oxygen (HBO) therapy. We examined whether HBO has made a difference in the morbidity, mortality and costs associated with treating this disease. We also analyzed predictors of extended hospital stay and mortality. MATERIALS AND METHODS: The records of patients with the hospital discharge diagnoses of Fournier's gangrene, necrotizing fasciitis, gangrene of the genitalia and scrotal gangrene from 1993 to 2002 were reviewed. Data concerning clinical presentation characteristics, hospital stay, complications, hospital charges and outcomes, including graft failure and death, were analyzed. RESULTS: A total of 42 patients were identified and followed a median 4.2 years. Of the patients 16 underwent surgical debridement and antibiotic therapy alone, and 26 were treated with HBO plus surgery and antibiotics. Overall disease specific mortality was 21.4%, that is 12.5% in the nonHBO group and 26.9% in the HBO group. Three or more complications occurred in 13% of nonHBO and in 19% of HBO cases, of which the most common was myocardial infarction. The skin graft failure rate was 6% (nonHBO) and 8% (HBO). Physical disability was a statistically significant predictor of extended hospital stay ($p < 0.01$). There was a trend toward a correlation between known coronary artery disease and death ($p = 0.2$). A statistically significant difference was noted in average daily hospital charges in nonHBO vs HBO cases ($2,552 vs $3,384 daily, $p < 0.01$). CONCLUSIONS: These data do not support routine HBO in the treatment of Fournier's gangrene. There was a trend toward higher morbidity and mortality in the HBO group, suggesting that treatment may have been given to patients who were more ill.
Internal Anal Sphincter Preservation With Seton Rerouting in High Transsphincteric Anal Fistula. Zbar AP, Pescatori M. Dis Colon Rectum 2005 May 27;.

The Authors Reply. Athanasiadis S, Helmes C, Yazigi R, Kohler A. Dis Colon Rectum 2005 May 26;.

A Phase I Clinical Trial of the Treatment of Crohn's Fistula by Adipose Mesenchymal Stem Cell Transplantation. Garcia-Olmo D, Garcia-Arranz M, Herreros D, Pascual I, Peiro C, Rodriguez-Montes JA. Dis Colon Rectum 2005 May 17;.
The number of patients included and the uncontrolled nature of Phase I clinical trials do not allow demonstration of the effectiveness of the treatment. However, the results of the present study encourage to perform further studies in Phase II.

Practice Parameters for the Treatment of Perianal Abscess and Fistula-in-Ano (Revised). Whiteford MH, Kilkenny J 3rd, Hyman N, Buie WD, Cohen J, Orsay C, Dunn G, Perry WB, Ellis CN, Rakinic J, Gregorcyk S, Shellito P, Nelson R, Tjandra JJ, Newstead G. Dis Colon Rectum 2005 May 17;.
The American Society of Colon and Rectal Surgeons is dedicated to assuring high-quality patient care by advancing the science, prevention, and management of disorders and diseases of the colon, rectum, and anus. The Standards Committee is composed of Society members who are chosen because they have demonstrated expertise in the specialty of colon and rectal surgery. . . Clinical Practice Guidelines based on the best available evidence. . . . The ultimate judgment regarding the propriety of any specific procedure must be made by the physician in light of all of the circumstances presented by the individual patient.

9 – BEHAVIOUR, PSYCHOLOGY, SEXOLOGY

The inferno [excerpt]. Alighieri D. Acad Med 2005 Jun;80(6):558.

Vardenafil improved patient satisfaction with erectile hardness, orgasmic function and sexual experience in men with erectile dysfunction following nerve sparing radical prostatectomy. Nehra A, Grantmyre J, Nadel A, Thibonnier M, Brock G. J Urol 2005 Jun;173(6):2067-71.

PURPOSE: Nerve sparing radical retropubic prostatectomy (NS-RRP) results in erectile dysfunction in a significant number of patients. Vardenafil, a potent and selective phosphodiesterase type 5 inhibitor, is generally safe. It improves International Index of Erectile Function erectile function domain scores, and penetration and erection maintenance success rates in patients who have undergone NS-RRP. We report additional parameters important to patient perceptions regarding erection quality and satisfaction with sexual experience following NS-RRP. MATERIALS AND METHODS: A total of 440 men at 58 centers throughout the United States and Canada participated in this randomized, placebo controlled, double-blind trial with 3 phases, namely baseline (4-week untreated period), treatment (12 weeks) and followup (7 days). Participants received placebo (145), 10 mg vardenafil (146) or 20 mg vardenafil (149) at home on demand but no more than once per calendar day. Efficacy and satisfaction with erection quality and sexual experience were determined during the trial. RESULTS: The 10 and 20 mg vardenafil doses were significantly superior to placebo for the International Index of Erectile Function domains for intercourse satisfaction, orgasmic function and overall satisfaction with sexual experience (vs placebo $p < 0.0009$). Significant improvement in the satisfaction rate with erection hardness were demonstrated for each vardenafil dose compared with placebo ($p < 0.0001$). Vardenafil was generally well tolerated. Common adverse events were headache, vasodilatation and rhinitis. CONCLUSIONS: In this difficult to treat population of men with erectile dysfunction subsequent to NS-RRP on demand treatment with vardenafil during a 3-month period significantly improved key aspects of the sexual experience important to patient quality of life.

Effects of the antidepressant St. John's wort (Hypericum perforatum) on rat and human vas deferens contractility. Capasso R, Borrelli F, Montanaro V, Altieri V, Capasso F, Izzo AA. J Urol 2005 Jun;173(6):2194-7.

PURPOSE: Since sexual dysfunction related to vas deferens smooth muscle contractility is a possible side effect of St. John's wort (SJW) (Hypericum perforatum) we evaluated the effect of this herbal antidepressant on rat and human vas deferens contractility. MATERIALS AND METHODS: The effect of SJW was evaluated on contractions induced by electrical field stimulation or exogenous agonists (alpha,beta-methylene adenosine triphosphate and phenylephrine) in isolated rat and human vas deferens. RESULTS: SJW (1 to 300 microM) decreased in a concentration dependent manner the amplitude of electrical field stimulation and agonist induced contractions with the same potency, suggesting direct inhibition of rat vas deferens smooth muscle. Of the chemical constituents of SJW tested hyperforin but not hypericin or the flavonoids quercitrin, rutin and kaempferol inhibited phenylephrine induced contractions. SJW and hyperforin also inhibited phenylephrine induced contractions in human vas deferens CONCLUSIONS: The results of our study demonstrate that SJW directly inhibits rat and human vas deferens contractility. If confirmed in vivo, these results suggest that SJW might affect sexual function in humans. These results might explain delayed ejaculation described in patients receiving SJW.

Anal fissures and anal scars in anal abuse-are they significant? Schmittenbecher P. J Pediatr Surg 2005 May;40(5):894.

Women's sexual dysfunction: revised and expanded definitions. Basson R. CMAJ 2005 May 10;172(10):1327-33.

Acceptance of an evidence-based conceptualization of women's sexual response combining interpersonal, contextual, personal psychological and biological factors has led to recently published recommendations for revision of definitions of women's sexual disorders found in the American Psychiatric Association's Diagnostic and Statistical Manual (DSM-IV-TR). DSM-IV definitions have focused on absence of sexual fantasies and sexual desire prior to sexual activity and arousal, even though the frequency of this type of desire is known to vary greatly among women without sexual complaints. DSM-IV definitions also focus on genital swelling and lubrication, entities known to correlate poorly with subjective sexual arousal and pleasure. The revised definitions consider the many reasons women agree to or instigate sexual activity, and reflect the importance of subjective sexual arousal. The underlying conceptualization of a circular sex-response cycle of overlapping phases in a variable order may facilitate not only the assessment but also the management of dysfunction, the principles of which are briefly recounted.

Reported sexual abuse predicts impaired functioning but a good response to psychological treatments in patients with severe irritable bowel syndrome. Creed F, Guthrie E, Ratcliffe J, Fernandes L, Rigby C, Tomenson B, Read N, Thompson DG. Psychosom Med 2005 May-Jun;67(3):490-9.
OBJECTIVE: We assessed the effect of reported sexual abuse on symptom severity and health-related quality of life in patients with severe irritable bowel syndrome (IBS) undergoing psychological treatments. METHODS: IBS patients entering a treatment trial who reported prior sexual abuse were compared with the remainder in terms of symptom severity and health-related quality of life (SF-36) at trial entry and 15 months later. Analyses used ANCOVA with age, sex, marital status, and treatment group as covariates. We assessed possible mediators using multiple regression analysis. RESULTS: Of 257 patients with severe IBS, 31 (12.1%) reported a history of rape and 28 (10.9%) reported forced, unwanted touching. People who reported abuse were more impaired than the remainder on the SF-36 scales for pain (adjusted p = .023) and physical function (p = .029); these relationships followed a "dose-response" relationship and were mediated by SCL-90 somatization score. At 15 months follow-up, the associations between reported abuse and SF-36 scores were lost because people with reported abuse, especially rape, improved more than the remainder when treated with psychotherapy or paroxetine (selective serotonin reuptake inhibitor antidepressant); this improvement was mediated by change in SCL-90 somatization score. CONCLUSIONS: In severe IBS, the association between self-reported sexual abuse and impaired functioning is mediated by a general tendency to report numerous bodily symptoms. A reported history of abuse is associated with a marked improvement following psychological treatment.

Male reproductive physiology as a sexually selected handicap? Erectile dysfunction is correlated with general health and health prognosis and may have evolved as a marker of poor phenotypic quality. Cellerino A, Jannini EA. Med Hypotheses 2005;65(1):179-84.
Many extravagant physical traits are selected because they are used as cues for mate choice (sexual selection). Why is mate choice driven by costly ornaments? A theory of sexual selection posits that extravagant traits are preferred because are reliable indicators of superior (heritable) phenotypic quality. In particular, the preferred traits can be expressed only in individuals with superior conditions because are handicaps which impose a high cost to the carrier. The human penis achieves its reproductive function by the complex neuro-vascular mechanisms that controls erection. Surprisingly, erectile dysfunction and infertility, two condition which nearly annihilate fitness, are widespread medical conditions which affect millions of people of any age worldwide. The very high incidence of erectile dysfunction appears as an evolutionary paradox. Impotence is associated with all major systemic diseases as well depression and stress. Stress is also one of the causes of infertility. Therefore, male reproduction appears to be extremely sensitive to internal and external stressors. Moreover, erectile dysfunction is a predictor of myocardial infarction and stroke, whereas men with regular sexual activity have lower risk of death due to coronary disease. This large body of medical literature makes erection the best case for a fitness indicator in the human male. We suggest that the fragility of male sexual physiology observed in modern society is the specific consequence of an evolutionary process driven by the handicap principle.

Early intervention for perinatal depression. Thoppil J, Riutcel TL, Nalesnik SW. Am J Obstet Gynecol 2005 May;192(5):1446-8.
OBJECTIVE: This study was undertaken to design a process that effectively identifies and facilitates early intervention for women in an obstetrics clinic who are at risk for postpartum depression. STUDY DESIGN: Under this new program, labeled ISIS (Identify, Screen, Intervene, Support), we educated our new obstetric patients and clinic staff about postpartum depression through patient education classes, departmental lectures, and handouts. Then, we implemented simple procedures to identify risk factors for depression at intake and screened for depressive symptoms at the 32-week visit using the Edinburgh Postnatal Depression Scale (EPDS). In addition, we facilitated treatment of at-risk or symptomatic patients with the introduction of a social work consultant in the clinic setting. RESULTS: In an obstetric chart review, 75% of our patients were screened for depression in pregnancy. Ten percent of these women demonstrated symptoms of depression warranting further evaluation. CONCLUSION: Preliminary data from our multidisciplinary approach suggest that educating, screening, and appropriately treating or referring these women can take place in a busy obstetric clinic.

Behavior problems and mental health referrals of international adoptees: a meta-analysis. Juffer F, van Ijzendoorn MH. JAMA 2005 May 25;293(20):2501-15.
International adoption involves more than 40,000 children a year moving among more than 100 countries. Before adoption, international adoptees often experience insufficient medical care, malnutrition, maternal separation, and neglect and abuse in orphanages. . . . Most international adoptees are well-adjusted although they are referred to mental health services more often than nonadopted controls. However,

international adoptees present fewer behavior problems and are less often referred to mental health services than domestic adoptees.

10 – MISCELLANEOUS

Predicting bacteriuria in urogynecology patients. Rahn DD, Boreham MK, Allen KE, Nihira MA, Schaffer JI. Am J Obstet Gynecol 2005 May;192(5):1376-8.
OBJECTIVE: This study was undertaken to determine whether reagent strip testing can predict bacteriuria in urogynecology patients. STUDY DESIGN: All women undergoing urodynamic evaluations from June 1997 to October 2001 were identified by using a computerized database. Urine culture results were compared with reagent strip testing. Significant bacteriuria was defined as greater than 10(5) colony-forming units per milliliter. RESULTS: Bacteriuria prevalence was 8.6% (n = 51). Sensitivity and specificity of nitrites were 0.51, (95% CI, 0.31-0.66) and 0.991, (95% CI, 0.974-0.998), respectively. Blood had a lower sensitivity (0.35, 95% CI, 0.20-0.54) and specificity (0.80, 95% CI, 0.75-0.84). Leukocyte esterase was similar to blood with a sensitivity of 0.28 (95% CI, 0.14-0.45) and specificity of 0.83 (95% CI, 0.78-0.87). No combination of tests offered improved sensitivity or specificity over nitrites alone. CONCLUSION: Nitrite dipstick testing has excellent specificity for bacteriuria in urogynecologic patients. These results support the treatment of women with positive nitrites who are preparing to undergo urodynamics without obtaining culture.

The incidence of urinary tract injury during hysterectomy: a prospective analysis based on universal cystoscopy. Vakili B, Chesson RR, Kyle BL, Shobeiri SA, Echols KT, Gist R, Zheng YT, Nolan TE. Am J Obstet Gynecol 2005 May;192(5):1599-604.
OBJECTIVE: To evaluate the incidence of urinary tract injury due to hysterectomy for benign disease. STUDY DESIGN: Patients were enrolled prospectively from 3 sites. All patients undergoing abdominal, vaginal, or laparoscopic hysterectomy for benign disease underwent diagnostic cystourethroscopy. RESULTS: Four hundred seventy-one patients participated. Ninety-six percent (24/25) of urinary tract injuries were detected intraoperatively. There were 8 cases of ureteral injury (1.7%) and 17 cases of bladder injury (3.6%). Ureteral injury was associated with concurrent prolapse surgery (7.3% vs 1.2%; P = .025). Bladder injury was associated with concurrent anti-incontinence procedures (12.5% vs 3.1%; P = .049). Abdominal hysterectomy was associated with a higher incidence of ureteral injury (2.2% vs 1.2%) but this was not significant. Only 12.5% of ureteral injuries and 35.3% of bladder injuries were detected before cystoscopy. CONCLUSION: The incidence of urinary tract injury during hysterectomy is 4.8%. Surgery for prolapse or incontinence increases the risk. Routine use of cystoscopy during hysterectomy should be considered.

Current severe psoriasis and the rule of tens. Finlay AY. Br J Dermatol 2005 May;152(5):861-7.
This review addresses the problems of defining severity of psoriasis. Concepts of severity depend on the timescale perspective from which judgement is made. Measurement needs to include assessment of signs, impact on the patient's life and the history of the disease. The concept of severity in relationship to quality of life measurement scores has been defined, so it is now possible to postulate a standard, easily remembered concept to help define 'severe psoriasis' in the clinic. The proposed Rule of Tens for current severe psoriasis from the clinician's viewpoint is: 'Current Severe Psoriasis = Body Surface Area involved > 10% or Psoriasis Area and Severity Index score > 10 or Dermatology Life Quality Index score > 10'.

Insulin independence after living-donor distal pancreatectomy and islet allotransplantation.
Matsumoto S, Okitsu T, Iwanaga Y, Noguchi H, Nagata H, Yonekawa Y, Yamada Y, Fukuda K, Tsukiyama K, Suzuki H, Kawasaki Y, Shimodaira M, Matsuoka K, Shibata T, Kasai Y, Maekawa T, Shapiro J, Tanaka K Lancet 2005 May 7;365(9471):1642-4.
Rising demand for islet transplantation will lead to severe donor shortage in the near future, especially in countries where cadaveric organ donation is scarce. We undertook a successful transplantation of living-donor islets for unstable diabetes. The recipient was a 27-year-old woman who had had brittle, insulin-dependent diabetes mellitus for 12 years. The donor, who was a healthy 56-year-old woman and mother of the recipient, underwent a distal pancreatectomy. After isolation, 408 114 islet equivalents were transplanted immediately. The transplants functioned immediately and the recipient became insulin-independent 22 days after the operation. The donor had no complications and both women showed healthy glucose tolerance. Transplantation of living-donor islets from the distal pancreas can be sufficient to reverse brittle diabetes.

[Pathophysiology of infection on orthopedic biomaterials] Ader F, Bernard L. Presse Med 2005 Apr 9;34(7):533-6.
Orthopedic biomaterials are foreign bodies and the molecular architecture of their surfaces provides a point of attachment for bacteria. This adherence is made possible through the interaction of the protein interface

and the bacterial adhesions. Bacterial colonies use slime and biofilms as means of protection. The development of bacteria towards a reversible state of stationary growth or microcolony variants permits their survival. Microparticles released by biomaterials cause the chronic inflammation associated with the aseptic loosening of prostheses. Some bacterial sub-populations develop transitory resistance to bactericidal antibiotics in the presence of these materials.

[In-vitro study of the cellular response of human fibroblasts cultured on alloplastic hernia meshes Influence of mesh material and structure.] Langer C, Schwartz P, Krause P, Mohammadi H, Kulle B, Schaper A, Fuzesi L, Becker H. Chirurg 2005 May 20;.

BACKGROUND: The biocompatibility of meshes in hernia surgery seems to be influenced markedly by the amount of the selected material and its structure. Fibroblasts play a major key role during the process of mesh incorporation. This study was performed to investigate differences in cell morphology and proliferation of human fibroblasts cultured on different polypropylene meshes.METHODS: In the present in vitro study the cellular response of human fibroblasts was investigated by scanning electron microscopy (SEM), comparing three different polypropylene meshes: a newly constructed low-weight and microporous mesh (NK1), a low-weight and macroporous mesh with absorbable polyglactin filaments (Vypro), and a heavy-weight and microporous mesh (BiomeshP1). Human fibroblasts (1,5.10(5) cells) were incubated with the meshes (each 12 mm(2)) for 6 hours, 5 days, 2, 4, 6, and 12 weeks. Computer-assisted morphometry of the fibroblast/mesh surface ratio served to reflect the biological cell response.RESULTS: The Vypro mesh showed the significantly highest fibroblast density during the first 6 weeks, but cell growth was nearly exclusively limited to the polyglactin filaments. At 3 months, after reabsorption of the polyglactin, the fibroblast-coated polypropylene mesh surface was only 50% compared to NK1 and BiomeshP1. The morphologic aspect of the fibroblasts on the BiomeshP1 mesh was much more degenerative and unphysiological, compared to NK1 and Vypro, with isolated, single cells instead of a broad, connective growth. The BiomeshP1 showed a significantly higher fibroblast proliferation around the nodes of the mesh compared to the straight filaments. On the NK1 mesh fibroblasts exclusively proliferated on the filaments but not on the pressed mesh surface.CONCLUSIONS: The polymer surface and structure appears to be of major importance for the biocompatibility of meshes: human fibroblasts preferably grow on low-weight meshes, thin filaments, and mesh nodes. Heavy-weight meshes induce degenerative cell reactions. Polyglactin seems to further improve cell proliferation whereas a pressed mesh surface without pores hinders fibroblast growth.

Role of interleukin-18 in allergy and autoimmunity: An explanation for the hygiene hypothesis. Mojtahedi Z, Ghaderi A. Med Hypotheses 2005;65(2):305-7.

The possibility that the hygiene hypothesis is the most reasonable explanation for the increased prevalence of both allergy (in which the immune response is dominated by Th2 cells) and Th1-mediated autoimmunity is supported by the observations that exposure of humans to microbial agents in early life can exert protection against these disorders later. However, there still remains a question about how environmental microbes can decrease both Th1 and Th2 immune-mediated disorders, the two opposite spectrums of the immune responses. Cytokines are considered the main determining factors in the initial differentiation of T cells to Th1 and Th2 subsets. IL-18 as a multifunctional cytokine is capable of polarizing the immune response to both of these distinct subsets depending on the genetic background and cytokine milieu. It is hypothesized that the reduced exposure to microbial agents in early life leads to the aberrant production of IL-18, which in turn influences individuals quite differently depending on their genetic background. In genetically predisposed individuals to allergy, it augments Th2 responses and in genetically predisposed individuals to Th1-autoimmunity it accelerates Th1 responses.

Results of urine cytology testing and cystoscopy in women with irritative voiding symptoms. Sokol ER, Patel SR, Sung VW, Rardin CR, Weitzen S, Clemons JL, Myers DL. Am J Obstet Gynecol 2005 May;192(5):1560-5.

OBJECTIVE: The purpose of this study was to assess rates of urinary cytologic abnormalities and cystoscopic outcomes in women with irritative voiding symptoms who were examined at a urogynecology clinic. STUDY DESIGN: All urinary cytology studies results that were sent between January 1, 2000, and July 31, 2003, for the evaluation of irritative voiding symptoms were reviewed. Data were then extracted from the charts of a subset of these patients to evaluate cystoscopic outcomes. Demographics, risk factors for urothelial cancer, laboratory results, and radiology imaging results were then analyzed and compared between patients with and without abnormal cytology and cystoscopic results. RESULTS: Of the 1783 total urinary cytology that were reviewed, 1661 test results were read as normal (93.2%); 112 test results (6.3%) were read as atypical, and 3 test results (0.2%) were read as unsatisfactory. Seven cytologic test results were categorized as suspicious or malignant, which accounts for only 0.4% of all cytologic test results that were sent. Of the 564 consecutive women whose cases were chosen for subanalysis, cytology was normal in 91.5% and atypical in 8.5% of cases. No cytology were suspicious or malignant. Cystoscopic findings

were normal in 548 patients (97.2%). Only 1 patient (0.2%) received a diagnosis of transitional cell carcinoma. CONCLUSION: Urinary cytology and cystoscopy are low yield tests and should not be used routinely in the initial evaluation of women with irritative voiding symptoms.

The usefulness of urinary cytology testing in the evaluation of irritative voiding symptoms. Sokol ER, Patel SR, Clemons JL, Sung VW, Rardin CR, Myers DL. Am J Obstet Gynecol 2005 May;192(5):1554-9.
OBJECTIVE: The purpose of this study was to assess the clinical usefulness of urinary cytology testing for the evaluation of urothelial cancer in women with irritative voiding symptoms who were examined at a urogynecology service. STUDY DESIGN: Urinary cytology studies results that were obtained from January 1, 2000, to December 31, 2002, were cross-matched with the Rhode Island Department of Health Cancer Registry to identify those women who were diagnosed with urinary tract malignancies. The prevalence of urothelial cancer was determined, and the sensitivity, specificity, and positive and negative predictive values of urinary cytologic testing were calculated for 2 common classification strategies: (1) consideration of atypical cytologic test results to be normal and (2) consideration of atypical cytologic test results to be abnormal. RESULTS: Among 1516 cross-matched cytologic test results from 1324 patients, 5 urothelial cancers were identified. Two of the 5 malignancies were associated with positive cytology results. The prevalence of urothelial cancer was 0.38% (95% CI, 0.1%, 0.9%). When atypical cytology studies were classified as normal, the sensitivity of urinary cytology was 40% (95% CI, 7.2%, 83.0%); the specificity was 99.9% (95% CI, 99.5%, 100%); the positive predictive value was 66.7% (95% CI, 12.5%, 98.2%), and negative predictive value was 99.8% (95% CI, 99.2%, 100%). In contrast, when atypical cytology results were classified as abnormal, the sensitivity and negative predictive value remained the same, but the specificity declined to 93.6% (95% CI, 92.1%, 94.8%), and the positive predictive value decreased to 2.3% (95% CI, 0.4%, 8.8%). CONCLUSION: The low prevalence of urothelial cancers and low sensitivity of urinary cytology studies severely limit the usefulness of this test in the evaluation of women with irritative voiding symptoms.

Melanoma of the penis, scrotum and male urethra: a 40-year single institution experience. Sanchez-Ortiz R, Huang SF, Tamboli P, Prieto VG, Hester G, Pettaway CA. J Urol 2005 Jun;173(6):1958-65.
PURPOSE: Genitourinary melanoma is rare and classically associated with a poor prognosis. We describe our experience with 10 patients with penile or urethral involvement. In addition, we present what is to our knowledge the largest reported series of melanoma of the scrotum (6 cases). MATERIALS AND METHODS: We reviewed the records of 16 men who presented consecutively to our institution with genitourinary melanoma between 1962 and 2000. Clinical and pathological characteristics were assessed, including Breslow thickness, primary surgical intervention and clinical course. RESULTS: Of 10 patients with penile or urethral melanoma 1997 American Joint Committee on Cancer melanoma pathological stage was T1 (depth less than 0.75 mm) in 4, T2 (0.75 to 1.5 mm) in 3 and T3 (1.51 to 4 mm) in 3. Only 1 of 4 patients with clinically palpable inguinal nodes had inguinal metastases at lymphadenectomy (BILND) and 3 who underwent prophylactic superficial BILND had negative findings. In 7 patients with T1-2N0M0 disease there were no local recurrences after wide local excision (WLE) or partial penectomy at a median followup of 35 months. Six of 7 men were rendered disease-free. One patient died of melanoma that developed at a second primary site. The 3 patients with T3 tumors who underwent partial (2) or radical (1) penectomy with or without BILND died of disease (2) or had progression (1). In all patients with penile melanoma the 5-year actuarial disease specific and recurrence-free survival rates were 80% and 60%, respectively, at a median followup of 39 months (range 20 to 210). Six patients with scrotal melanoma were treated with WLE without local recurrences. Three of the 6 patients had palpable inguinal nodes, of whom 2 died after chemotherapy for unresectable disease and 1 died of other causes 51 months after negative BILND. The 3 men with clinically negative groins who did not undergo prophylactic BILND had distant (1) or regional (2) metastases and died of disease. In patients with scrotal melanoma the 5-year actuarial disease specific and recurrence-free survival rates were 33.3% and 33.3%, respectively, at a median followup of 36 months. CONCLUSIONS: Partial penectomy or WLE provided effective local control for low stage penile or urethral melanomas and all scrotal lesions. Patients showing clinically positive, proven metastasis died despite appropriate surgical procedures and multi-agent chemotherapy. Prophylactic modified inguinal lymphadenectomy should be considered in select patients with penile, scrotal and anterior urethral melanoma.

The impact of medical legal risk on obstetrician-gynecologist supply. Robinson P, Xu X, Keeton K, Fenner D, Johnson TR, Ransom S. Obstet Gynecol 2005 Jun;105(6):1296-302.
OBJECTIVE: To evaluate the effects of medical legal risk on practice location of obstetrician-gynecologists. METHODS: We used the American College of Obstetricians and Gynecologists (ACOG) Membership Record to determine the number of Fellows and Junior Fellows by state. We obtained state malpractice premiums from the Medical Liability Monitor and state birth rates from the National Center for Health Statistics. The American Medical Association (AMA) "Crisis" and ACOG "Red Alert" designations, as well as

state malpractice premium levels, were used to approximate malpractice risk. We examined the changes in state births to obstetrician-gynecologist rates from 1995 to 2003 by using the Student t test and Mann-Whitney tests. Comparisons were made between states of different risk levels. RESULTS: We found no significant difference in the percentage changes in births per Fellow or births per Junior Fellow between AMA "Crisis" and remaining states, nor between ACOG "Red Alert" and Safe states. The percentage changes in births per Fellow were similar in the 10 highest-premium states and the 10 lowest-premium states. The percentage increase in births per Junior Fellow in the 10 highest-premium states was significantly greater than the 10 lowest-premium states (median 28.5% versus 5.0%, P = .03). CONCLUSION: Malpractice premiums appear to influence practice location of new obstetrician-gynecologists. Neither the AMA designation of "Crisis" nor the ACOG designation of "Red Alert" had supply implications in the analysis. More research on the interaction of malpractice rates and obstetrician-gynecologist supply is needed for informed decisions regarding malpractice premium management. LEVEL OF EVIDENCE: II-3.

Episiotomy and vaginal trauma. Scott JR. Obstet Gynecol Clin North Am 2005 Jun;32(2):307-21.
The era of routine episiotomy is gradually ending. Previously perceived benefits gradually have been disproved as evidence-based scientific clinical studies have shown the detrimental effects of episiotomy; however, circumstances always will exist in which prudent clinical judgment may dictate the necessity for an episiotomy. In most of these situations, however, an episiotomy often can be avoided. Perhaps more hospital perinatal review committees should evaluate episiotomy rates and strive to convince their staff to reduce their rates. We can learn to be more patient and allow the natural forces of labor to gradually stretch the perineum. In reviewing the extensive volume of published literature on episiotomy and perineal-vaginal trauma, the best advice lies in the dictum "Don't just do something, sit there!"

Vaginal birth after classical Caesarean section. de Costa C. Aust N Z J Obstet Gynaecol 2005 Jun;45(3):182-6.

Vaginal birth after cesarean delivery: practice patterns of obstetrician-gynecologists. Coleman VH, Erickson K, Schulkin J, Zinberg S, Sachs BP. J Reprod Med 2005 Apr;50(4):261-6.
OBJECTIVE: To assess obstetrician-gynecologists' current practice patterns and opinions regarding vaginal birth after cesarean delivery (VBAC). STUDY DESIGN: Questionnaires were mailed to a random sample of 1,200 American College of Obstetricians and Gynecologists (ACOG) fellows in July 2003. Information was gathered on percentage of cesarean and VBAC deliveries performed, factors influencing changes in these rates in the past 5 years, hospital protocol regarding VBAC and factors influencing the recommendation of VBAC. RESULTS: Fifty-three percent of questionnaires were returned to ACOG after 3 mailings. Approximately 49% of respondents reported that they were performing more cesarean deliveries than they were 5 years earlier. The primary reasons for this increase were the risk of liability and patient preference for delivery method. More than 25% of physicians reported that they practiced in hospitals that do not follow the ACOG guidelines with respect to resources and immediate availability. Almost all (98.2%) respondents agreed that they knew the risks and benefits of VBAC. However, only 61% reported feeling competent in determining which patients will have a successful VBAC. CONCLUSION: Obstetrician-gynecologists seem to be aware of the risks and benefits of VBAC; however, there is some doubt as to who should be offered a trial of labor and what predicts a successful VBAC.

Mesalazine improves replication fidelity in cultured colorectal cells. Gasche C, Goel A, Natarajan L, Boland CR. Cancer Res 2005 May 15;65(10):3993-7.
Epidemiologic studies indicate that mesalazine has chemopreventive effects in inflammatory bowel disease-associated colorectal cancer. Most of our general understanding of chemoprevention in colorectal cancer is, however, derived from aspirin, which is structurally similar to mesalazine. Herein we determined the influence of aspirin and mesalazine on replication fidelity in cultured colorectal cells. Flow cytometry was used for quantitation of mutation rates at a (CA)13 microsatellite in HCT116 cells (mismatch repair deficient) and HCT116+chr3 cells (mismatch repair proficient) that had been stably transfected with pIRESHyg2-EGFP/CA13, an enhanced green fluorescence protein-based plasmid, and cultured in the absence or presence of various concentrations of aspirin or mesalazine. Aspirin at doses above 1.25 mmol/L markedly reduced cell growth. Mesalazine doses up to 5.0 mmol/L had no such effect. The mutation rate in mismatch repair-deficient HCT116 cells was 6.8 x 10(-4) +/- 9.0 x 10(-5). In aspirin-treated cultures the mutation rate was 8.2 x 10(-4) +/- 1.3 x 10(-4) (121% of control). Instead, mesalazine lowered the mutation rate in a dose-dependent fashion (5.5 x 10(-4) +/- 1.1 x 10(-4); 81% of control). The effects of mesalazine were most significant in the M1 fraction (P < 0.0001), which represents a mutant population immediate after the polymerase error and were confirmed in mismatch repair-proficient HCT116+chr3 cells. Our data indicate that mesalazine reduces frameshift mutations at a (CA)13 microsatellite in cultured colorectal cells independent of mismatch repair proficiency. This finding suggests that mesalazine improves replication

fidelity, an effect that may be active in reducing mutations independent of its anti-inflammatory properties.

Screening and preventive behaviors one year after predictive genetic testing for hereditary nonpolyposis colorectal carcinoma.
Collins V, Meiser B, Gaff C, St John DJ, Halliday J
Cancer 2005 Jun 9;.
Prevention benefits from predictive genetic testing for cancer will only be fully realized if appropriate screening is adopted after testing. The current study assessed screening and preventive behaviors during 12 months after predictive genetic testing for hereditary nonpolyposis colorectal carcinoma (HNPCC) in an Australian clinical cohort. METHODS: Participants received predictive genetic testing for HNPCC at one of five Australian familial cancer clinics. Data on self-reported screening behaviors (colonoscopy, and endometrial sampling and transvaginal ultrasound for women) and prophylactic surgery (colectomy, and hysterectomy and bilateral oophorectomy for women) were collected using postal questionnaires before (baseline) and 12 months after receipt of genetic test results. Age, gender, perceived risk of cancer, and cancer-specific distress were assessed as predictors of colonoscopic screening. RESULTS: In the current study, 114 participants returned baseline questionnaires (32 carriers and 82 noncarriers of an HNPCC mutation). Ninety-eight participants also returned a 12-month follow-up questionnaire. Of those >/= 25 years, 73% reported having had a colonoscopy before genetic testing. At follow-up, 71% (15 of 25) of carriers and 12% (8 of 65) of noncarriers reported having a colonoscopy in the 12 months after receipt of test results. The reduction in colonoscopy among noncarriers was statistically significant (P < 0.001). High perceived risk was associated with colonoscopy at baseline. At follow-up, mutation status was the only variable significantly associated with colonoscopy. Among female mutation carriers, 47% reported having transvaginal ultrasonography and 53% endometrial sampling during follow-up. There was low uptake of prophylactic surgery for colorectal, endometrial, or ovarian carcinomas. CONCLUSIONS: The majority of individuals reported appropriate screening behaviors after predictive genetic testing for HNPCC. The small group of noncarriers who had screening after genetic testing might benefit from additional counseling.

Transanal Excision vs. Major Surgery for T1 Rectal Cancer. Endreseth BH, Myrvold HE, Romundstad P, Hestvik UE, Bjerkeset T, Wibe A. Dis Colon Rectum 2005 May 5;.
PURPOSE: The purpose of this national study was to examine the long-term results of transanal excision compared with major surgery of T1 rectal cancer. METHODS: This prospective study from the Norwegian Rectal Cancer Project included all 291 patients with a T1M0 tumor within 15 cm from the anal verge treated by anterior resection, abdominoperineal resection, Hartmann's procedure, or transanal excision in the period from November 1993 to December 1999. RESULTS: Two hundred fifty-six patients were treated by major surgery and 35 patients by transanal excision. None of the patients had neoadjuvant therapy. Macroscopic tumor remnants (R2) occurred in 17 percent (6/35) of the transanal excisions, while major surgery obtained 100 percent R0 resections. Eleven percent of the patients treated with major surgery had glandular involvement. There were no significant differences according to tumor localization, size, or differentiation between Stage I and Stage III tumors. Patients treated with transanal excision were older than patients having major surgery (mean age, 77 vs. 68 years, P < 0.001). After curative resection (R0, R1, Rx) the five-year rate of local recurrence was 12 percent (95 percent confidence interval, 0-24) in the transanal excision group compared with 6 percent (95 percent confidence interval, 2-10) after major surgery (P = 0.010). The overall five-year survival was 70 percent (95 percent confidence interval, 52-88) in the transanal excision group compared with 80 percent (95 percent confidence interval, 74-85) in the major surgery group (P = 0.04) and the five-year disease-free survival was 64 percent (95 percent confidence interval, 46-82) in the transanal excision group compared with 77 percent (95 percent confidence interval, 71-83) in the major surgery group (P = 0.01). CONCLUSIONS: The main problem of transanal excision for early rectal cancer in the present study was the inability to remove all the malignancy. Patients treated with transanal excision had significantly higher rates of local recurrence compared with patients who underwent major surgery. Patients who had transanal excision had inferior survival, but they were older than those who had major surgery.

Nicorandil and Idiopathic Anal Ulceration. Katory M, Davies B, Kelty C, Arasaradnam R, Skinner P, Brown S, Bagley J, Shorthouse AJ, Hunt LM, Slater R. Dis Colon Rectum 2005 May 5;.
PURPOSE: Several reports have implicated nicorandil as a reversible cause of anal ulceration. We have recently commenced a specialist clinic for patients presenting with severe anal ulceration to assess treatment in this difficult group. Recognition of this association may avoid unnecessary surgery. METHODS: Twenty-six patients treated with nicorandil had severe painful anal ulceration. Examination under anesthesia was required to biopsy the lesions to exclude neoplasia or inflammatory bowel disease. In total, three patients had proximal diverting stomas without subsequent ulcer resolution, two had perineal debridement with one requiring subsequent skin grafting, and one had an abdominoperineal excision for unremitting pain. RESULTS: The association of perianal ulceration with nicorandil became apparent only in the latter part of

this series. Ten ulcers successfully reepithelialized when nicorandil was stopped. Nine patients reported anal pain relief and partial healing on clinical examination at two months but failed to show subsequent complete resolution. One patient agreed to nicorandil cessation and reported symptomatic anal pain relief at two weeks but subsequently developed unstable angina requiring hospital admission. Nicorandil was recommenced with anal pain relapse. CONCLUSIONS: Failure to recognize nicorandil as an etiologic factor in the development of anal ulceration, when other potential underlying well-recognized inflammatory or neoplastic processes have been excluded, may lead to unnecessary surgical intervention in a group of high-risk patients. One of our patients had a potentially avoidable abdominoperineal resection. Pharmaceutical manipulation with alternative antiangina medication may induce healing. Pharmacologic manipulation should be coordinated with a physician to minimize precipitation of unstable angina.

Prospective Manometric Assessment of Botulinum Toxin and Its Correlation With Healing of Chronic Anal Fissure. Thornton MJ, Kennedy ML, King DW. Dis Colon Rectum 2005 May 2;.
INTRODUCTION: The efficacy and pharmacokinetics of botulinum toxin for chronic anal fissure continues to be debated. Addressing both issues we prospectively assessed the manometric impact of botulinum toxin on internal anal sphincter pressure, correlating this impact with chronic anal fissure healing. METHODS: Sixty patients with chronic fissures were assessed. Fifty-seven patients had a total of 20 units of botulinum toxin injected into the intersphincteric groove at four o'clock and eight o'clock. Patients were prospectively assessed with a linear analog pain score, bleeding score, clinical fissure score, modified St. Mark's continence score, and anorectal manometry. Each parameter was reassessed two weeks following treatment and again at three months. RESULTS: Fifty-six patients (30 female), median age 43 (range, 17-80) years, were followed for a median of five (range, 3-15) months with fissure healing assessed 12 weeks after treatment. Physical healing and symptom control were dependent on the baseline maximum anal resting pressure and baseline fissure score (P = 0.003, P = 0.009, respectively). Although maximum anal resting pressure fell by 17 (mean, range, 0-71) percent, pressure reduction did not correlate with clinical outcome (P > 0.2). Seventeen patients reported a mean 17 percent increase in continence score. There was no correlation between deterioration in continence and baseline or subsequent reduction in maximum anal resting pressure. CONCLUSION: Patients with Grade 1 lower-pressure fissures are more likely to heal following treatment with 20 units of botulinum toxin. Healing does not appear to be dependent on a reduction in maximum anal resting pressure.

Ethical Issues in Innovative Colorectal Surgery. Marron JM, Siegler M. Dis Colon Rectum 2005 May 2;.
When physicians and surgeons investigate new drugs or devices, they must adhere to stringent regulatory standards governing human experimentation. Although these standards and regulations are not perfect, they serve to protect the interests of patients and research subjects. By contrast, few standards or regulations exist for innovative procedures, including new surgical techniques. Surgeons apply the term "innovative surgery" to describe practices ranging from minor technical modifications in standard procedures to nonvalidated investigational approaches indistinguishable from human research. By focusing on recent innovations in surgery, including colorectal surgery, this article proposes an ethical model of surgical innovation that protects patients while maintaining professional self-regulation of surgical advances.

Anal Carcinomas in HIV-Positive Patients: High-Dose Chemoradiotherapy Is Feasible in the Era of Highly Active Antiretroviral Therapy. Blazy A, Hennequin C, Gornet JM, Furco A, Gerard L, Lemann M, Maylin C. Dis Colon Rectum 2005 Apr 27;.
BACKGROUND: Anal carcinoma, a common disease in HIV-positive patients, is usually treated with chemoradiotherapy. Generally tolerance was poor before the availability of highly active antiretroviral therapies. We report our experience of treating anal carcinoma in the era of new antiviral drugs. PATIENTS AND METHODS: Between 1997 and 2001, nine men on highly active antiretroviral therapies with good immune status before chemoradiotherapy received concomitant chemoradiotherapy consisting of 5-fluorouracil and cisplatinum, and high-dose radiotherapy (60-70 Gy) for anal carcinoma. Six cancers were Stage I, two were Stage II, and one was Stage III. CD4+ cell counts were <200/ml for four patients, between 200/ml and 500/ml for four, and >500/ml for one. RESULTS: All patients received the planned dose of radiation (>/=60 Gy). The chemotherapy dose was reduced 25 percent in six patients. Overall treatment time was 58 days. Grade 3 hematologic or skin toxicity occurred in four patients. No association was observed between high-grade toxicity and CD4+ cell count. None of the patients developed opportunistic infections during follow-up. Eight patients were disease-free after a median follow-up of 33 months. Among them, four had no or minor anal function impairment at the last follow-up visit. One patient with T4N2 disease relapsed locally one year after treatment and underwent salvage abdominoperineal excision. CONCLUSION: High-dose chemoradiotherapy for anal carcinomas is feasible with low toxicity in HIV-positive patients treated with highly active antiretroviral therapies. Local control is similar to that obtained for HIV-negative patients.

Histologic Risk Factors and Clinical Outcome in Colorectal Malignant Polyp: A Pooled-Data Analysis. Hassan C, Zullo A, Risio M, Rossini FP, Morini S. Dis Colon Rectum 2005 May 26;.
PURPOSE: The malignant polyp carries a significant risk of lymphohematic metastasis and mortality. Clinical usefulness of histologic risk factors is still controversial. The study was designed to compute the association between the main histologic risk factors and the occurrence of unfavorable outcomes in patients with malignant polyps. METHODS: A MEDLINE search regarding malignant polyps was performed. Three histologic risk factors (positive resection margin, poor differentiation of carcinoma, vascular invasion) and five (residual disease, recurrent disease, lymph node metastasis, hematogenous metastasis, mortality) unfavorable clinical outcomes were evaluated. Further analysis was performed by subgrouping polyps in high-risk and low-risk groups. RESULTS: Thirty-one studies enrolling 1,900 patients with malignant polyp were selected. Positivity of resection margin was significantly predictive of the presence of residual disease (odds ratio, 22; $P < 0.0001$), poorly differentiated carcinoma was associated with an increased mortality (odds ratio, 9.2; $P < 0.05$), and vascular invasion with a higher lymph node metastasis risk (odds ratio, 7; $P < 0.05$). Patients with high-risk polyps showed a significantly worse outcome than those with low-risk, especially for mortality (odds ratio, 11; $P < 0.05$). Surgical-related death was as low as 0.8 percent. CONCLUSIONS: All three histologic risk factors are significantly associated with the clinical outcome. Classification in low-risk and high-risk patients may be regarded as a meaningful staging procedure.

Debate: should mesalamine be used in Crohn's disease?: comments and conclusions. Kamm MA. Inflamm Bowel Dis 2005 Jun;11(6):616-7.
Mesalamine has a well-established role in the management of ulcerative colitis. However, its role in the management of Crohn's disease (CD) is less clear. Studies evaluating its therapeutic value in CD have produced both positive and negative results. Meta-analyses have not clarified the situation, possibly because they have combined studies of different design. This debate critically examines the evidence for and against the use of mesalamine in CD.

Crohn's disease and month of birth. Van Ranst M, Joossens M, Joossens S, Van Steen K, Pierik M, Vermeire S, Rutgeerts P. Inflamm Bowel Dis 2005 Jun;11(6):597-9.
BACKGROUND: Environmental factors trigger the onset of inflammatory bowel disease (IBD) in genetically predisposed individuals. Exposure to seasonal external factors during the maturation of the immune system is suspected to be an inducing factor for IBD. Some studies suggested an association between the month of birth and the later development of IBD. We studied this putative relationship in a large cohort of Belgian patients with Crohn's disease (CD). METHODS: Data from 1025 patients born between 1935 and 1990 were collected. Diagnosis of CD was based on generally accepted clinical, endoscopic, and histologic criteria. As a control group, a cohort of 5125 non-IBD patients seen at the same hospital and matched for birth year and sex was used. Odds ratios were calculated using multivariate unconditional logistic regression including the matching variables and allowing for cyclic variation in risk with month of birth. RESULTS: A cyclic pattern described by a 4-month periodic function was observed with peaks in April and August. Moreover, being born in June significantly reduced the risk of developing CD later in life ($P = 0.012$). CONCLUSION: In this Belgian cohort, a significant association was found between the month of birth and later development of IBD; a significant reduced risk to develop CD was observed for people born in June. Moreover, environmental yearly reoccurring factors during pregnancy or postpartum might be associated with the occurrence of CD later in life.

Short-term endpoints of conventional versus laparoscopic-assisted surgery in patients with colorectal cancer (MRC CLASICC trial): multicentre, randomised controlled trial. Guillou PJ, Quirke P, Thorpe H, Walker J, Jayne DG, Smith AM, Heath RM, Brown JM. Lancet 2005 May;365(9472):1718-26.
BACKGROUND: Laparoscopic-assisted surgery for colorectal cancer has been widely adopted without data from large-scale randomised trials to support its use. We compared short-term endpoints of conventional versus laparoscopic-assisted surgery in patients with colorectal cancer to predict long-term outcomes. METHODS: Between July, 1996, and July, 2002, we undertook a multicentre, randomised clinical trial in 794 patients with colorectal cancer from 27 UK centres. Patients were allocated to receive laparoscopic-assisted (n=526) or open surgery (n=268). Primary short-term endpoints were positivity rates of circumferential and longitudinal resection margins, proportion of Dukes' C2 tumours, and in-hospital mortality. Analysis was by intention to treat. This trial has been assigned the International Standard Randomised Controlled Trial Number ISRCTN74883561. FINDINGS: Six patients (two [open], four [laparoscopic]) had no surgery, and 23 had missing surgical data (nine, 14). 253 and 484 patients actually received open and laparoscopic-assisted treatment, respectively. 143 (29%) patients underwent conversion from laparoscopic to open surgery. Proportion of Dukes' C2 tumours did not differ between treatments (18 [7%] patients, open vs 34 [6%], laparoscopic; difference -0.3%, 95% CI -3.9 to 3.4%, p=0.89), and neither did in-hospital mortality (13 [5%] vs 21 [4%]; -0.9%, -3.9 to 2.2%, p=0.57). Apart from patients undergoing laparoscopic anterior resection for

rectal cancer, rates of positive resection margins were similar between treatment groups. Patients with converted treatment had raised complication rates. INTERPRETATION: Laparoscopic-assisted surgery for cancer of the colon is as effective as open surgery in the short term and is likely to produce similar long-term outcomes. However, impaired short-term outcomes after laparoscopic-assisted anterior resection for cancer of the rectum do not yet justify its routine use.

Inguinal neurectomy for nerve entrapment after open/laparoscopic hernia repair using retroperitoneal endoscopic approach. Muto CM, Pedana N, Scarpelli S, Galardo R, Guida G, Schiavone V. Surg Endosc 2005 May 5;.
BACKGROUND: Inguinal neuralgia after open and laparoscopic hernia, repair occurs in about 0.5% of treated patients. If the pain and the functional inability persist, it is possible that the genitofemoral nerve and ileoinguinal nerve are involved in entrapment, and surgical treatment is a possible option. This paper reports a personal endoscopic retroperitoneal approach for ileoinguinal and genitofemoral branches neurectomy. METHODS: A 12-mm trocar is inserted into the lower retroperitoneum and insufflated to create a work space. Neurectomy is performed under endoscopic guidance. RESULTS: Six patients were treated using this technique. The operating time was 55 min, and all patients were completely pain-free after surgery. All patients were discharged the first day after operation and there were no complications. CONCLUSION: This retroperitoneal endoscopic approach is proposed as a new surgical technique for treating inguinal entrapment neuralgia. It is simple and feasible.

Are patients with inflammatory bowel disease receiving optimal care? Reddy SI, Friedman S, Telford JJ, Strate L, Ookubo R, Banks PA. Am J Gastroenterol 2005 Jun;100(6):1357-61.
OBJECTIVES: Guidelines have been published as a framework for therapy of patients with inflammatory bowel disease (IBD). The purpose of this study was to determine whether patients referred for a second opinion were receiving therapy in accordance with practice guidelines. METHODS: Patients with luminal IBD under the care of a gastroenterologist who sought a a second opinion at Brigham and Women's Hospital between January 2001 and April 2003 were enrolled in this study. Clinical information was obtained by direct patient interview at the time of initial patient visit and by a review of prior records. Data obtained included the diagnosis, clinical symptoms, prior medical therapy, preventive measures for metabolic bone disease, and colon-cancer screening. RESULTS: The study population consisted of 67 consecutive patients: 21 with ulcerative colitis, 44 with Crohn's disease and 2 in whom the diagnosis of IBD could not be confirmed. Of the 65 patients with confirmed IBD, 56 patients had symptoms of active disease and 9 were asymptomatic. All analyses were carried out on the 56 patients with active disease. Of the 33 patients treated with aminosalicylates, 21 (64%) were not receiving maximal doses. Nine of 12 (75%) patients with distal ulcerative colitis were not receiving rectal aminosalicylate therapy. Within 6 months of their clinic visit, 35 patients had received corticosteroid therapy, and 27 (77%) patients had been treated with corticosteroids for greater than 3 months. In 16 of 27 (59%) there was no attempt to start steroid sparing medications such as 6-mercaptopurine (6MP), azathioprine, or infliximab. Of the 11 patients treated with either 6MP or azathioprine, 9 (82%) were suboptimally dosed without an attempt to increase dosage. Of the 27 patients on prolonged corticosteroid therapy 21 (78%) received inadequate treatment to prevent metabolic bone disease. Three of 9 patients (33%) meeting indications for surveillance colonoscopy for dysplasia had not undergone colonoscopy at the appropriate interval. CONCLUSIONS: Patients with IBD often do not receive optimal medical therapy. In particular, there is suboptimal dosing of 5-ASA and immunomodulatory medications, prolonged use of corticosteroids, failure to use steroid-sparing agents, inadequate measures to prevent metabolic bone disease, and inadequate screening for colorectal cancer. (Am J Gastroenterol 2005;100:1-5).

Sphincter function after surgery for vestibular anus in adults. Delaini GG. Tech Coloproctol 2005 Apr;9(1):73-4; author reply 74.

Infliximab as rescue therapy in severe to moderately severe ulcerative colitis: a randomized, placebo-controlled study.
Jarnerot G, Hertervig E, Friis-Liby I, Blomquist L, Karlen P, Granno C, Vilien M, Strom M, Danielsson A, Verbaan H, Hellstrom PM, Magnuson A, Curman B. Gastroenterology 2005 Jun;128(7):1805-11.
Background & Aims: Despite treatment with corticosteroids, severe to moderately severe attacks of ulcerative colitis have a high colectomy rate. We intended to find a rescue therapy other than cyclosporin A, which imposes a high risk of side effects and cyclosporine-related mortality. Methods: This was a randomized double-blind trial of infliximab or placebo in severe to moderately severe ulcerative colitis not responding to conventional treatment. Patients were randomized to infliximab/placebo either on day 4 after the initiation of corticosteroid treatment if they fulfilled the index criteria for fulminant ulcerative colitis on day 3 or on day 6-8 if they fulfilled index criteria on day 5-7 for a severe or moderately severe acute attack of

ulcerative colitis. Results were analyzed according to the intention-to-treat principle. The primary end point was colectomy or death 3 months after randomization. Secondary end points were clinical and endoscopic remission at that time in patients who did not undergo operation. Results: Forty-five patients were included (24 infliximab and 21 placebo). No patient died. Seven patients in the infliximab group and 14 in the placebo group had a colectomy (P = .017; odds ratio, 4.9; 95% confidence interval, 1.4-17) within 3 months after randomization. No serious side effects occurred. Three patients in the placebo group required operation for septic complications. Conclusions: Infliximab 4-5 mg/kg is an effective and safe rescue therapy in patients experiencing an acute severe or moderately severe attack of ulcerative colitis not responding to conventional treatment.

Herbal remedies in gastroenterology. Comar KM, Kirby DF. J Clin Gastroenterol 2005 Jul;39(6):457-68.
Complementary and alternative medicine (CAM) is presently not considered to be part of conventional medicine. Nevertheless, an estimated 51% of patients with gastrointestinal disorders have tried some from of CAM. Indeed, 10% of alternative medicines are being used for digestive symptoms. After prayer or spiritual healing, herbal medicine is the second most common CAM therapy. While herbal products make numerous health-related claims, those that have been systematically evaluated are unfortunately few. The modern gastroenterologist must be up to date with the regulations, side effects, and possible benefits of specific herbal products used in patients with gastrointestinal disorders.

Reparative properties of a commercial fish protein hydrolysate preparation. Fitzgerald AJ, Rai PS, Marchbank T, Taylor GW, Ghosh S, Ritz BW, Playford RJ. Gut 2005 Jun;54(6):775-81.
BACKGROUND: A partially hydrolysed and dried product of pacific whiting fish is currently marketed as a health food supplement to support "intestinal health". However, there has been only limited scientific study regarding its true biological activity. AIMS: We therefore tested its efficacy in a variety of models of epithelial injury and repair. METHODS: Effects on proliferation were determined using [(3)H] thymidine incorporation into epithelial rat intestinal RIE-1 and human colonic HT29 cells. Effects on restitution (cell migration) were analysed using wounded HT29 monolayers and its ability to influence gastric injury analysed using a rat indomethacin restraint model. Partial characterisation of bioactive agents was performed using mass spectroscopy, high pressure liquid chromatography, and gas chromatography. RESULTS: Both cell proliferation and cell migration were increased by about threefold when added at 1 mg/ml ($p<0.01$). Gastric injury was reduced by 59% when gavaged at 25 mg/ml ($p<0.05$), results similar to using the potent cytoprotective agent epidermal growth factor at 12.5 mug/ml. The vast majority of biological activity was soluble in ethanol, with glutamine in its single, di-, and tripeptide forms probably accounting for approximately 40% of the total bioactivity seen. Fatty acid constituents may also have contributed to cell migratory activity. CONCLUSIONS: Fish protein hydrolysate possesses biological activity when analysed in a variety of models of injury and repair and could provide a novel inexpensive approach for the prevention and treatment of the injurious effects of non-steroidal anti-inflammatory drugs and other ulcerative conditions of the bowel. Further studies appear justified.