





# Women's Health Across the Lifespan

Move Forward.™
Physical Therapy Brings Motion to Life

www.moveforwardpt.com

### **Women's Health Physical Therapists**

This guide is intended to provide insight into some of the many conditions common to women and the many ways in which a Women's Health Physical Therapist can help to treat them.

Some women may be hesitant to discuss certain conditions with their health care providers. Women's Health Physical Therapists (WH PTs) have specialized education and expertise in the evaluation and treatment of both acute (new) and chronic (long-standing) conditions that specifically affect women. As experts in conservative treatment that includes non-surgical and non-medication solutions, WH PTs can be invaluable resources as a part of a well-rounded health care and wellness team.

Finding a qualified WH PT who suits your goals and personality is important. Prior to making your selection, consider interviewing WH PT's to inquire about their training and certifications. For more information and to find a WH PT in your area, visit <a href="https://www.moveforwardpt.com">www.moveforwardpt.com</a>, and click on "Find a PT."

It is important to remember that, while this guide provides tips, each condition and patient is unique. The content of *Women's Health Across the Lifespan* is not intended to be a substitute for a visit to a physical therapist or other health care professional. If you experience signs or symptoms of injury or illness, you should seek the advice of a health care professional.

<sup>&</sup>lt;sup>©</sup>2012 by the American Physical Therapy Association. All rights reserved. For more information about this and other APTA publications, contact the American Physical Therapy Association, 1111 North Fairfax Street, Alexandria, VA 22314-1488, 800/999-2782, www.apta.org.

# **Pelvic Pain and Overactive Pelvic Floor Muscle Dysfuntion**

Do you ever experience discomfort during a gynecological exam? Is sex painful or unpleasant? Does pain in your tailbone make sitting uncomfortable or downright impossible? If so, then you are not alone. Pain in the pelvic region can be a scary and even isolating event. You might think that what you are feeling is not *normal* and others won't understand what you are going through.

A WH PT will perform an internal pelvic examination to assess sensation, mobility, strength, tone, and function of the pelvic floor muscles.

### What is the pelvic floor?

Think of it as a hammock of support that starts at the pubic bone, spreads across to the sit bones (ischial tuberosities), and ends at the tailbone (coccyx). The urethra, vagina, and rectum are supported by the pelvic floor muscles. These muscles can sag and lose their ligamentous support, resulting in pelvic organ prolapse, or descent. The pelvic floor muscles can also become short and painful, often in response to negative sensations resulting from a urinary tract infection or postmenopausal changes in estrogen levels that affect vaginal health.

### How can you get relief?

A WH PT can evaluate the condition of your pelvic floor muscles to determine if they are weak, tight, or in spasm. They can share solutions for functional problems associated with pelvic floor dysfunction and will work with your physician or other health care provider to support you in your recovery.

# Conditions commonly treated by WH PTs who specialize in pelvic pain:

- Dysmennhorea
- Endometriosis
- Interstitial Cystitis
- Male pelvic pain (some WH PTs also treat men)
- Mechanical causes of female infertility\*
- Pudendal Neuralgia (pelvic nerve entrapment)
- Vaginismus
- Vulvodynia
- \* Case study level of evidence only as of date of publication.

### What is chronic pelvic pain?

It is a general term for pain or discomfort in the pelvic region lasting 3 months or longer. It is a common disorder that affects 5% to14% of women nationwide. [1,2] The source of pain can originate from the pelvic organs (bladder, colon, or uterus), and can result from failure of ligamentous or muscular structures, or failure of bony structures of the pelvis. [3]

If you have pain, it is important to note that pain is a very individual experience and no one knows it better than you. Recent research indicates that chronic pain can become "driven" by the central nervous system, called "central sensitization," as much, if not more, than local muscle, nerve, and ligament problems "drive" the pain. A WH PT experienced in working with chronic pain will work with you on strategies to address your pain.[4]

Spasm of the pelvic floor muscles, also known as **Levator Ani Syndrome**, can cause increased tension of the pelvic floor and contribute to pain in the low back, pelvis, and hip area. Patients with Levator Ani Syndrome often have the sensation of a mass in the rectum or pressure in the anal canal. Simple tasks, such as sitting, toileting, and performing everyday household chores can be difficult. The genitalia can also be affected. [5]

Women experiencing pain with sexual intercourse or speculum examination may have a condition called **vaginismus**. This condition is caused by excessive tightness of the pelvic floor musculature around the opening of the vagina in the anticipation of pain. This can interfere with a woman's sex life and compromise her ability to get pregnant.

### What can you do?

Gentle stretches, just as a runner might stretch the hamstrings to improve range of motion, can provide relief and increased comfort. A WH PT is skilled in the instruction of techniques, such as the use of vaginal dilators, to gently stretch the muscles. Often this is combined with the use of pressure or EMG Biofeedback, a technique in which the patient is given a visual representation of her muscle's electrical activity while she tries to relax and stretch the area.[6] Biofeedback is also effective in identifying particular muscles that are weak and could benefit from strengthening. Stretching and strengthening exercise, commonly known as the Kegel exercise, (named after Dr. Arnold Kegel, the gynecologist who developed them in the 1950s), can lead to increased pleasure during sexual activity.[7]

Tightness of the pelvic floor muscles can also contribute to constipation, as the person may not relax the area enough to have a productive bowel movement and will strain to pass stool as a result. Chronic straining can lead to other dysfunctions.

Treatment by a trained WH PT may include soft tissue mobilization of the muscles of the pelvic floor, identification of muscle guarding (a protective response in the muscle that results from pain or fear of movement), suggestions and exercise to change poor posture, and relaxation techniques such as diaphragmatic breathing. Sometimes Kegels are used to help improve dysfunction.[5]

- 1. Mathias SD, Kupperman M, Liberman RF, et al. Chronic pelvic pain: prevalence, health-related quality of life, and economic correlates. *Obstet Gynecol.* 1996;87:321–327.
- 2. Howard FM. Chronic pelvic pain. Obstet Gynecol. 2003;101:594-611.
- 3. Steege JF, Metzger DA, Levy BS. Chronic Pelvic Pain: An Integrated Approach. Philadelphia, PA: WB Saunders; 1998.
- 4. Butler D, Moseley, L. Explain Pain. Noigroup publications. Adelaide, Australia. 2003.
- 5. Irion JM, Irion GL. Women's Health in Physical Therapy. Philadelphia, PA: Lootters Kluwer, Lippincott Williams & Wilkins; 2010.
- 6. Cram JR, Kasman G. Introduction to Surface Electromyography. Baltimore, MD: Aspen Publishers; 1998.
- 7. Burgio KL, Robinson JC, Engel BT. The role of biofeedback in Kegel exercise training for stress urinary incontinence. *Am J Obstet Gynecol*. 1991;154:58–64

### **Tailbone Pain (Coccydynia)**

When you experience pain in your tailbone (coccyx), it is referred to as coccydynia, or simply tailbone pain.

Coccydynia can have many symptoms, such as immediate and severe pain when moving from sitting to standing, pain with prolonged sitting or when sitting in a hard chair, pain during bowel movements, pain during sex, and a deep achy pain in the region of the tailbone. [1]

The cause of coccydynia can be complex. Most patients do not know how their coccyx pain began unless they have given birth or had a traumatic fall. Over time the symptoms gradually progress. [2]

After ruling out infection, an X-ray and MRI are typically the first line of testing required to diagnose coccydynia. Physical therapists can then determine the position of the coccyx, and help to change it if it is too flexed, extended, or deviated to the side. Mobilizing the coccyx can help change its position and alleviate the symptoms. Internal manual therapy for the soft tissue surrounding the coccyx can also provide relief. [3]



Cleveland Clinic. Coccydynia (Tailbone Pain). Available at <a href="http://my.clevelandclinic.org/disorders/coccydynia/hic\_coccydynia\_tailbone\_pain.aspx">http://my.clevelandclinic.org/disorders/coccydynia/hic\_coccydynia\_tailbone\_pain.aspx</a>. Accessed on April 8, 2012.

<sup>2.</sup> Maigne JY, Doursounian L, Chatellier G. Spine (Phila Pa 1976). 2000;25: 3072-3079.

<sup>3.</sup> Maigne JY, Chatellier G. Comparison of three manual coccydynia treatments: a pilot study. *Spine (Phila Pa 1976)*. 2001;26:E479–E483.

### **Bowel Dysfunction/Constipation**

Many people experience constipation at some point in their lives. It is the most common gastrointestinal complaint, affecting 4.5 million people in the United States, resulting in an average of 2.5 million visits to physicians and a cost of \$725 million in over-the-counter products each year. Symptoms vary, but medically, constipation is defined as having fewer than 3 bowel movements per week.[1,2]

Constipation is usually characterized by stools that are hard, dry, small in size, and difficult to eliminate. Some people who are constipated find it painful to have a bowel movement and often experience straining, bloating, and the sensation of a full bowel. The condition affects women more frequently than men, and a common cause is failure to consume enough water and/or fiber, which may slow down the gastrointestinal system.

For patients with a long history of constipation, and whose symptoms could be due to a muscle or nerve problem, physical therapy can provide long-term relief.
[3] There are several reasons why a muscle problem can be a contributing factor to chronic constipation:

- Weak abdominal muscles that can make it too difficult to muster enough pushing force
- Prior abdominal surgery that can create scar tissue blocking the normal movement of stool through the colon
- Pelvic floor weakness that can change the anorectal angle, making it difficult to eliminate stool
- Closing pelvic floor muscles instead of opening them, which can create infrequency of bowel movements and inability to eliminate stool

If you are experiencing bowel dysfunction, it is important to see a gastroenterologist or a colorectal physician who can run appropriate tests to rule out any pathology or disease that would cause bowel behavior to change. Afterwards, a physical therapist can collaborate with your health care team to ensure you receive the appropriate care.

National Digestive Diseases Information Clearinghouse. Digestive Diseases Statistics for the United States. Available at <a href="http://digestive.niddk.nih.gov/statistics/statistics.aspx">http://digestive.niddk.nih.gov/statistics/statistics.aspx</a>. Accessed on April 11, 2012.

<sup>2.</sup> National Digestive Diseases Information Clearinghouse. Constipation. Available at <a href="http://digestive.niddk.nih.gov/ddiseases/pubs/constipation">http://digestive.niddk.nih.gov/ddiseases/pubs/constipation</a>. Accessed on September 30, 2011.

<sup>3.</sup> Heymen S, Scarlett Y, Jones K, et al. Randomized, controlled trial shows biofeedback to be superior to alternative treatments for patients with pelvic floor dyssynergia-type constipation. *Dis Colon Rectum.* 2007;50:428–441.

### **Interstitial Cystis**

The cause of Interstitial Cystitis (IC), or painful bladder syndrome, is unknown. If you have the following symptoms then you may have IC and should see a WH PT: [1,2,3]

- Recurring pelvic pain
- Pressure or discomfort in the bladder or pelvic region
- Urinary frequency and urgency (having to go often and immediately)
- Painful intercourse

Women are 10 times more likely than men to have IC, and the onset of the condition often occurs around ages 30 to 40. [1,3] Risk factors include pelvic floor muscle dysfunction, bacterial infection, autoimmune disorders, bladder trauma, surgery, or chronic disorders, such as fibromyalgia or irritable bowel syndrome. [1,2,3]

While there is no cure for IC, a WH PT can help you manage the symptoms and improve your overall quality of life. Treatment may include bladder training, relaxation techniques, electrical stimulation, and diet modification. [1,2,3] You should consult your physician to rule out other issues, such as infection. Afterwards, you can seek the help of a WH PT near you.



<sup>1.</sup> Interstitial Cystitis. PubMed Health. Available at <a href="https://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0001508"><u>www.ncbi.nlm.nih.gov/pubmedhealth/PMH0001508</u></a>. Accessed August 10, 2011.

<sup>2.</sup> Interstitial Cystitis Association. Available at www.ichelp.org. Accessed August 10, 2011.

<sup>3.</sup> Mayo Clinic. Available at www.mayoclinic.com. Accessed August 10, 2011.

## Incontinence and Low Libido — Types and Treatments

After childbirth, don't all women leak urine? As you get older, isn't it normal to leak urine or bowel? Is my libido lost forever?

These are questions commonly asked by women at various stages of life and the answer to each is a resounding *no*. During childbirth (a vaginal delivery) the pelvic floor muscles may stretch. And as you age, your muscles can weaken from disuse. This can lead to the symptoms mentioned above. However, none of these conditions are considered "normal" and they are not something you should have to live with for the rest of your life.

Statistics say approximately 20 million people in North America experience incontinence. A recent study also demonstrated that pelvic floor disorders occur in 23.7% of all women in the United States.[1] White women are more likely than African American or Hispanic women to report urinary incontinence because they experience stress urinary incontinence symptoms more often. However, urge urinary incontinence occurs equally among white, African American, and Hispanic women. Frequent urination and excessive night time waking to void (more than the norm of 0-1 time per night) is more common in African American women.[2]

While men report unusual or new bladder problems to their doctor more often, most women are either too embarrassed to talk about it or think it is normal and don't mention it. The good news is there are conservative solutions to these problems that often do not involve medication or surgery.

<sup>1.</sup> Nygaard I, Barber MD, Burgio KL, et al. Prevalence of symptomatic pelvic floor disorders in US women. *JAMA*. 2008;300:1311–1316.

<sup>2.</sup> Sze EH, Jones WP, Ferguson JL, et al. Prevalence of urinary incontinence symptoms among black, white, and Hispanic women. *Obstet Gynecol*. 2002;99:572–575.

### **Types of Incontinence**

**Stress incontinence** is defined as urinary leaking with increased pressure within the abdomen caused by coughing, sneezing, laughing, or any physical exertion. This is a result of pelvic floor muscles that are either too weak or shortened.[3] After vaginal delivery, a woman's pelvic floor muscles may be lengthened and weakened, and many women just don't know how to strengthen these muscles again. Muscles that are either too weak or are shortened can result in urinary or bowel leakage.

If you experience stress incontinence or decreased sexual stimulation, it is important to strengthen the pelvic floor muscles with Kegel exercises. It is best to first receive an evaluation by a qualified WH PT who is experienced in internal pelvic floor assessment, and who can prescribe a specific, individualized exercise program, before beginning Kegel exercises. During your initial pelvic physical therapy session, a thorough medical history is taken as well as a general screening and internal pelvic floor exam.

Most women will notice a considerable decrease in leakage as well as improvement in their ability to achieve orgasm after only a couple of months of doing Kegels consistently. However, it is important to remember that every woman's body responds differently; one woman may achieve her goals within 2 months, while it may take 6 months for another to have the same results.

**Urge incontinence** involves a sudden and strong urge to urinate, along with the inability to control it, resulting in leakage. This could be caused either by shortened and/or weak pelvic floor muscles, or from an excessive amount of muscle tension or spasm in the area. Urge incontinence usually requires a more hands-on approach by a physical therapist with expertise in the treatment of pelvic floor dysfunction. Urge incontinence is typically the result of shortened or overactive pelvic floor muscles. These muscles need to be lengthened through manual therapy. Once these muscles are lengthened and functioning at full capacity, they can be strengthened by performing Kegel and core stabilization exercises.

Stress and urge incontinence, also called "mixed incontinence," is characterized by leakage that occurs when coughing, sneezing, or lifting a heavy object. It is accompanied by the urge to urinate, which results in small or large amounts of urinary or fecal incontinence. A prolapse, or descent of the bladder, colon, or uterus may or may not be a contributing factor. A prolapse is typically due to a combination of genetics, activity history (high impact exercise such as running and gymnastics increases risk) body weight, and pregnancy. A mild to moderate prolapse can also be helped through strengthening of the pelvic floor muscles and education by a WH PT.

<sup>3.</sup> Grewar H, McLean L. The integrated continence system: a manual therapy approach to the treatment of stress urinary incontinence. *Man Ther.* 2008;13:375–386.

Fecal incontinence is defined as the inability to control the passage of liquid or solid stool.[1] Incontinence can vary from passing pieces of stool or just a mild amount of watery discharge with or without knowledge of the event. It is estimated that almost 6.5 million people experience this condition.[2] Men are more likely than women to seek help from a physician, often because women are more accustomed to wearing feminine protection, and thus are more likely to just wear some sort of incontinence protection and live with the symptoms.

Most people believe that incontinence, whether urinary or fecal, is part of the normal aging process, but it isn't. Proper normal pelvic floor strength *is* achievable among all groups, including the elderly, with appropriate exercise under the instruction and guidance of a physical therapist who specializes in pelvic floor dysfunction.

Once preliminary testing is conducted to rule out a pathology or disease, a physical therapist can determine which muscles need to be strengthened. Biofeedback or rectal electrical stimulation—a rectal sensor placed in the rectum, strengthening muscles by squeezing against the sensor—may be warranted to help you strengthen your muscles. Depending on your condition, you may receive biofeedback from a computer screen that allows you to see your muscles, or you may receive a home trainer to assist for 15 to 20 minutes daily.

# Did You Know?

Just 49% of women, given verbal instruction alone, can do Kegel exercises correctly. Also, 25% will contract their muscles in a manner that can actually worsen incontinence. A visit to a WH PT who is experienced in internal pelvic floor muscle assessment for individual guidance on Kegel exercises is strongly recommended.

<sup>1.</sup> WebMD. Bowel Incontinence. 9 February 2012. Available at <a href="https://www.webmd.com/digestive-disorders/bowel-incontinence">www.webmd.com/digestive-disorders/bowel-incontinence</a>.

<sup>2.</sup> United States National Institutes of Health. Department of Health and Human Services. Fecal Incontinence. Bethesda, MD: National Digestive Diseases Information Clearinghouse; 2001.

### What causes bladder/bowel problems?

Sometimes this question is easily answered—a fall on your tailbone, an increase in mileage in a running program, a labored vaginal delivery, a large weight gain, or chronic straining from constipation. But usually the answer is not easily understood as there are multiple factors such as genetic predisposition, poor posture, weak core muscles, an old injury, or multiple urinary tract or yeast infections. The important thing to remember is that if you or anyone you know experiences bladder or bowel problems, it should be addressed immediately.

85% of women who have bladder or bowel incontinence and/or low libido, do find significant improvement or even a cure with treatment by a WH PT [1]

 American Physical Therapy Association, Section on Women's Health. Regional course manual. Beginner Pelvic Physical Therapy. St Louis, MO: 2003.



Sexual dysfunction is another common complaint of women after childbirth and menopause. Often times it becomes either more difficult for them to achieve orgasm, or they have lost the ability altogether. The pelvic floor muscles not only assist with bowel and bladder control, but also with sexual stimulation. If you stretch or don't actively strengthen the pelvic floor muscles, they lose part or all of their function, resulting in difficulty with orgasms or no orgasms at all. The PC muscle (pubococcygeus muscle), and one of the levator ani muscles, is the main assistant with sexual function. [4] Again, a WH PT can help through education and assistance with proper stretching and strengthening exercises.

Chambless D, Stern T, Sultan FE, Williams AJ, Goldstein AJ, Lineberger MH, Lifshitz JL, Kelly L. The Pubococcygeus muscle and orgasm: a correlation study with normal people. *Arch Sex Behav.* 1982;11(6).

### **Pregnancy and Postpartum**

### How does the body change in preparation for childbirth?

There are multiple changes, both anatomical and physiological, that occur in the bodies of women who are pregnant. These may include an increased heart rate, increase in blood circulating within the body, and natural changes in the pelvic anatomy (hormones cause the pelvic joints and ligaments to loosen, allowing for increased room for the baby's head) as the woman's body prepares for vaginal delivery.[1,2] Unfortunately, this also puts the woman at risk for increased strain to the pelvis.[3,4]

For instance, a separation of the abdominal muscles can occur. This happens in 27% of women who are in their second trimester; 66% of women who are in their third trimester; and 30% of women who are at 8 weeks postpartum. [5,3] The rate of abdominal separation (diatasis recti separation) is higher in non-exercising pregnant women than in women who exercise regularly.[6]

A WH PT can teach women how to measure for this separation and how to best and safely exercise during and after pregnancy to strengthen abdominal muscles.

### How frequently do women have low back pain during pregnancy?

Low back and pelvic pain during pregnancy occurs in 20% to 72% of women.[7,8,9,10] The wide range in percentages is a result of differences in definition and patient reporting. However, 30% to 50% of pregnant women report pain that is severe enough to cause them to lose time from work.[11,12,8] Women with low back pain in one pregnancy are at greater risk for low back pain postpartum and in subsequent pregnancies.[13]

For women experiencing low back pain, WH PTs will conduct a thorough examination and evaluation and design an exercise program that will safely restore strength to the core muscles to reduce the likelihood of low back and pelvic pain during pregnancy.

If a pregnant woman has a great deal of pain, she may need to wear a brace to support her low back and abdominal muscles. This will allow her to continue to perform some of her activities until delivery, and then she will be able to engage in an enhanced restorative exercise program.[14]



### How should pregnant women and their partners prepare for labor and delivery (Cesarean Section versus Vaginal Delivery)?

Women should know the various types of delivery and what their chances are for having a Cesarean Section versus a vaginal delivery. Cesarean births in the United States are at 32.9% and involve a number of recovery issues for which a WH PT can provide advice, both before and after delivery.[15]

A WH PT can also lead you in your gradual return to physical activity and fitness and can instruct mothers in exercises that will make their delivery easier, such as pelvic floor muscle training, gentle stretching, and practice of laboring positions.

### **Fitness during pregnancy**

Women are encouraged to engage in both strengthening and aerobic conditioning exercises during uncomplicated pregnancies.

WH PTs follow the American College of Obstetricians and Gynecologists (ACOG) guidelines for exercise during pregnancy.[16] Here are a few health and safety tips to get you started:[13]

- Wear supportive, athletic shoes.
- Exercise in a climate-controlled, or air-conditioned environment during hot/ humid months.
- Always carry a water bottle and hydrate often.
- Avoid laying on your back while exercising during the second and third trimesters
- Use the "talk test" (able to hold a conversation) to determine a comfortable effort level during aerobic exercise.
- Seek the services of a WH PT with expertise in improving/maintaining appropriate core strength during pregnancy to reduce risk for pelvic or back pain.

### Returning to exercise after childbirth

Most women are able to return to exercise 6 weeks after childbirth with clearance from their OB/GYN or midwife. At this point, it is recommended that a new mother begin working with a WH PT who is experienced in evaluating and prescribing post pregnancy aerobic and strength exercises. [17] However, for prevention and treatment of pregnancy-related pelvic floor dysfunction, most WH PTs recommend beginning or resuming pelvic muscle exercise (Kegels) prior to the 6 week postpartum timeframe.

### **Proper lifting and body mechanics**

While low back pain generally resolves in women following childbirth, prevention of overuse injuries in the low back is more likely when the following strategies are used:

- Carry baby close to center of body rather than on one hip/side.
- Keep spine tall (neutral) and bend at hips and knees; avoid spinal flexion with lifting.
- Keep hips and shoulders in line while facing what you are lifting, and avoid twisting or rotating. Push whenever possible (i.e., avoid pulling).
- Get help with heavier items (ask for assistance).
- Build a "bridge" with your hand or foot by placing it onto a stable surface nearby (e.g. counter or sink top when brushing teeth, car bumper when unloading groceries from trunk, car seat when putting baby into infant car seat.)

#### References

- 1. Becker I, Woodley SJ, Stringer MD. The adult human pubic symphysis: a systematic review. J Anat. 2010;217:475–487.
- 2. Standring S. Gray's Anatomy. 14th ed. London, United Kingdom: Churchill Livingstone Elsevier; 2008.
- 3. Boissonnault JS, Stephenson RG. The obstetric patient. In: Boissonnault WG. Primary Care for the Physical Therapist: Examination and Triage. St. Louis, MO. Elsevier Saunders; 2011:326–358.
- 4. Boissonnault JS, Klestinski JU, Pearcy K. The role of exercise in the management of pelvic girdle and low back pain in pregnancy: a systematic review of the literature. J Women's Health Phys Therap. In press.
- Boissonnault JS, Blaschak MJ. Incidence of diastasis recti abdominis during the childbearing year. Phys Ther. 1988;68:1082– 1086.
- 6. Chiarello CM. The effects of an exercise program on diastasis recti abdominis in pregnant women. J Women's Health Phys Ther. 2005;29:12–15.
- 7. Mogren IM, Pohjanen AI. Low back pain and pelvic pain during pregnancy: prevalence and risk factors. Spine. 2005 Apr 15;30(8): 983–991.
- 8. Ostgaard HC, Andersson GB, Karlsson K. Prevalence of back pain in pregnancy. Spine. 1991;16:549–552.
- 9. Vleeming A, Albert HB, Ostgaard HC, et al. European guidelines for the diagnosis and treatment of pelvic girdle pain. Eur Spine J. 2008;17:794–819.
- 10. Wang SM, DeZinno P, Maranets I, et al. Low back pain during pregnancy: prevalence, risk factors, and outcomes. Obstet Gynecol. 2004;104:65–70.
- 11. Kristiansson P, et al. Back pain during pregnancy: A prospective study. Spine. 1996; 21:702-9.
- 12. Noren L, Ostgaard S. reduction of sick leave for lumbar back and posterior pelvic pain in pregnancy. Spine. 1997: Sept (15); 22(18):2157-60.
- 13. Davies GA, Wolfe LA, Mottola MF, MacKinnon C. Society of Obstetricians and Gynecologists of Canada; Society of Obstetricians and Gynecologists of Canada Clinical Practice Obstetrics Committee. Joint SOGC/CSEP Clinical Practice Guideline. Exercise in pregnancy and the postpartum period. Can J Appl Physiol. 2003;28:330–341.
- Stephenson RG, O'Connor LJ. Obstetric and Gynecological Care in Physical Therapy. 2nd ed. Thorofare, NJ: Slack Incorporated; 2000.
- 15. Martin J, Hamilton B, Ventura S, et al. Births: final data for 2009. Natl Vital Stat Rep. 2011;60(1).
- 16. Artal R, O'Toole M. Guidelines of the American College of Obstetricians and Gynecologists for exercise during pregnancy and the postpartum period. Br J Sports Med. 2003;37:6–12. http://www.msscentershop.info/content/37/1/6.full. Accessed April 19, 2012.
- 17. Bump RC, Hurt WG, Fantl JA, Wyman JF. Assessment of Kegel pelvic muscle exercise performance after brief verbal instruction. Am J Obstet Gynecol.1991;165:322–329.

### **Additional Gender-Specific Conditions**

Some WH PTs receive advanced specialization in other areas, such as orthopedic, sports and medical/oncologic (cancer related) physical therapy. Such providers are key resources in the identification, evaluation, and treatment of issues affecting the female nervous, musculoskeletal and visceral systems. Searching for board-certified providers who actively pursue continuing education and interviewing WH PTs for treatment style and experience are important. Here is a brief listing of other gender-specific conditions commonly treated by WH PTs:

- ◆ Anterior Cruciate Ligament (ACL) Injuries
- Breast and other cancers
- Chronic Myofascial Pain
- Hypermobility Syndrome
- ♦ Female Athlete Triad
- Fibromyalgia

- Knee Osteoarthritis
- Osteoarthritis
- Patella Femoral Pain
- ◆ Post-Menopausal Heart Disease
- ◆ Sacroiliac (SI) Joint Dysfunction

You can find more information and a qualified WH PT near you by visiting <a href="https://www.moveforwardpt.com">www.moveforwardpt.com</a>.

APTA and its Section on Women's Health would like to thank the following contributors/editors for their work on this resource:

Lila Abbate, PT, DPT, OCS, WCS
Secili DeStefano, PT, DPT, OCS
Pamela Downey, PT, DPT, WCS, BCB-PMD
Sarah Haag, PT, DPT, MS, WCS
Jennifer Klestinski, PT, MPT, OCS, WCS, CSCS, BCB-PMD
Sara Reardon, PT, DPT, WCS, BCB-PMD
Amy Stein, PT, MPT, BCB-PMD
Rebecca Stephenson, PT, DPT, MS, WCS, CLT

Have you or someone you know been helped by a physical therapist for a women's health issue?

We'd love to hear from you. Pleae e-mail APTA Public Relations at pub\_rel@apta.org.



