



FEATURE

Menopause: PTs Help to Ease 'The Change'

Sometimes overlooked, physical therapy can be highly beneficial in helping women through and beyond this phase of life.

By Danielle Bullen Love | September 2019

"We need to educate people to change the perception. It can be a time of opportunity," says Karen Snowden, PT, DPT, a physical therapist (PT) who is board-certified in women's health physical therapy and practices at the Lehigh Valley Health Network in Pennsylvania.

She is speaking about menopause.

Every woman who lives long enough will experience this life transition. Yet many PTs are unaware that their skills as movement experts can help prepare women for menopause, ease some of its side effects, and contribute to a longer, healthier life. Physical therapy for women prior to, during, and beyond menopause is a largely untapped niche for women's health providers and an opportunity to reach patients across the lifespan, say the PTs interviewed for this article.



Menopause occurs when estrogen and progesterone decrease and a woman's ovarian function stops. It's defined as happening when a woman misses menstruation for 12 consecutive months, barring other medical causes. (See "Menopause in Brief" on page 21.) Approximately 6,000 women enter menopause each day in the United States.¹ According to the North American Menopause Society, it occurs most often between ages 45 and 55, with 51 the average.²

Screening Tools

Several screening options are available to providers to gauge the impact of menopause on women's health. Denise Hartzell Leggin, PT, MBA, uses the Menopause Rating Scale.³ Hartzell Leggin, a women's health clinical specialist who practices at Penn Therapy & Fitness Radnor in Pennsylvania, is board-certified in women's health physical therapy. Using the scale, women rank elements of their sexual, urinary, musculoskeletal, and mental health. Physicians can order bone density scans and share the results with their PT colleagues.

Both Snowden and Karen Litos, PT, DPT—owner of No Mom Left Behind Physical Therapy in Okemos, Michigan—recommend the Fracture Risk Assessment Tool (FRAX®).⁴ That test analyzes osteoporosis risk in postmenopausal women. It can be taken online and includes questions about age, smoking, family history of hip fracture, glucocorticoid (eg, Prednisone) use and arthritis, and femoral neck bone mineral density. If a woman is at a particular risk, the tool suggests treatments.

Litos—who also is board-certified in women's health physical therapy—and Snowden also recommend SARC-F, a 5-item questionnaire administered by practitioners to predict a woman's risk of sarcopenia, the loss of muscle mass due to aging.⁵ PTs also use manual muscle testing in the clinic.

PTs and other clinicians can use the results of these various assessments to create personalized treatment approaches. Menopause produces many physiological changes, which generally can be grouped into 2 broad areas—pelvic floor health and musculoskeletal health.

Pelvic Floor Health

"Pelvic muscle function is affected by lifestyle, anatomy, and genetic and reproductive factors, as well as aging," notes Hartzell Leggin, who was part of the first cohort of PTs to be board-certified in women's health.

Pelvic floor dysfunction is an umbrella term "describing pelvic muscles not performing optimally," Hartzell Leggin says. "This may present as urinary incontinence, pelvic organ prolapse, fecal incontinence, constipation, pelvic pain, and/or sexual dysfunction." These issues can present throughout a woman's lifespan, but the normal physiological process of aging, menopause, and lifestyle activities may contribute to these symptoms. For example, work demands such as heavy and repetitive lifting, improper exercise mechanics and voiding patterns, and excess body weight stress the pelvic floor and cause damage over time.

Many effects of menopause are interrelated. For example, constipation can relate to urinary leakage. Getting up at night to use the bathroom can be associated with injury, as women may slip and fall when they are drowsy or in unlit rooms.

As with various other conditions cited in this article, urinary incontinence is not caused by menopause. It can, however, be exacerbated by pelvic floor weakness as women age. Holly Tanner, PT, DPT, MA, founder of Flow Rehab in Seattle—a practice specializing in pelvic dysfunction, orthopedic issues, and chronic pain—notes that incontinence and prolapse are not natural results of aging. Tanner is board-certified in both orthopaedic and women's health physical therapy and is a certified pelvic rehabilitation provider by the Herman & Wallace Pelvic Rehabilitation Institute.

Pelvic floor therapy is recommended as the first defense against urinary incontinence. In the APTA video "Incontinence: Treatment by a Physical Therapist," Carrie Pagliano, PT, DPT, president of the Section on Women's Health (SOWH), explains, "The pelvic floor muscles act like a sling between the pelvic bones to help support the bladder."⁶ Like Tanner, she is board-certified in both orthopaedic and women's health physical therapy.

The video suggests that biofeedback can assess pelvic floor muscles and determine if they contract when appropriate. PTs can teach women to retrain those muscles.

Pelvic organ prolapse occurs when the colon, uterus, and bladder collapse into the pelvic canal, causing pain and pressure. Loss of estrogen, a naturally occurring feature of menopause, promotes tissue loss and weakens surrounding tissues and muscles. Women who have had at least 1 vaginal birth have a 50% chance of prolapse, which may or may not be symptomatic, says Hartzell Leggin. Pelvic floor issues aren't as common in women who never had children, but they do exist, she adds.

Weighty Matters

Vaginal delivery is not the only factor contributing to organ prolapse. "Weight gain can affect pelvic health issues such as urinary incontinence and pelvic organ prolapse," notes Tanner.

Weight gain is common in menopausal and postmenopausal women, and the loss of estrogen results in redistribution of weight to the abdomen. It's a vicious cycle, PTs say, as pressure created by the shifting organs can make exercise uncomfortable. Prolapse also can cause sacroiliac pain, another condition that can discourage working out.

To determine the strength of pelvic floor muscles, PTs can test muscles intravaginally with a digital exam. They then can suggest core exercises to strengthen pelvic floor muscles. In addition, Tanner says, women should be aware of their holding patterns. "Some folks have a habit of creating pressure in their trunk that presses down on the organs in their pelvis," she points out. "They need to be taught how to manage these pressures, and that can include their pelvic floor muscles."

Tanner recommends that women be assessed by a PT prior to menopause to gauge strength, coordination, and relaxation.

Sexual Dysfunction

Pelvic floor physical therapy also can improve sexual health as women move through menopause. Tissue thinning caused by estrogen depletion can lead to vaginal dryness, irritation, and pain during intercourse. In the CLOSER (Clarifying Vaginal Atrophy's Impact on Sex and Relationships) survey, 58% of women who are postmenopausal cited avoiding intimacy because of vaginal discomfort.⁷

For some women, a topical estrogen cream is helpful. CLOSER reported that 56% of women who used locally applied estrogen therapies experienced less painful sex. For others, however, a more comprehensive approach—including manual therapy, exercise, and perhaps hormones—was needed.

Multiple factors beyond tissue irritation can influence a woman's sexual health during and after menopause. Low back and hip pain can make it difficult to find a comfortable position for sex. A PT can prescribe exercises to improve hip mobility.

Body image issues are another factor. If women who are menopausal are—or feel—bloated, they might be less interested in sexual activity. Nina Olson, PT, DPT, who practices at Freedom Physical Therapy Services in Wisconsin and earned a certificate of achievement in pelvic physical therapy (CAPP) through the Section on Women's Health, remarks, "Body changes can be upsetting to women during this time."

Many women do not approach their health care provider with pelvic floor problems, Olson notes. For that reason, she says, it's the responsibility of the practitioner to ask about bowel, bladder, and sexual health, and direct women to the right resources.

Losing Bone and Muscle Mass

Loss of estrogen during menopause affects more than pelvic floor health. Bone strength and density decrease as a woman ages. Starting with the year before menopause begins and extending until its conclusion, a woman can lose about 6% of her bone mass within a 3-year time period, Litos and Snowden say. Estrogen depletion leads to osteoporosis. As a result, during their lifetimes 50% of women will break at least 1 bone due to osteoporosis.⁸

Olson notes that sarcopenia begins before menopause, usually in a woman's 40s. Thirty percent of women in their 60s experience sarcopenia. As women age, muscle is replaced by fat. By age 70, a woman can lose between 30% and 50% of her muscle mass, as muscles become infiltrated with fat, say Litos and Snowden.

Wellness Education

PTs can help turn the tide with regard to loss of bone and muscle mass.

For one thing, "we support the idea of being proactive," Snowden says. She encourages PTs to talk to younger women about building bone and muscle strength well before the onset of menopause.

Litos and Snowden presented "Staying Fit Beyond Menopause Through Early Screening and Training" at APTA's Combined Sections Meeting (CSM) earlier this year. They emphasized early intervention for diseases and symptoms associated with hormonal changes brought on by menopause. According to the session handout: "Unfortunately, women miss their best window of opportunity to modify risk factors in the years prior to and immediately following menopause. PTs, as musculoskeletal experts, are in a unique position to help more women through early screening, education, and specific training to maximize bone and muscle strength for improved health post menopause. Specific lifestyle changes can build and maintain bodily strength before, during, and after the menopause transition, positively impacting a woman's health long term."⁹

Building Strength

Exercise improves quality of life of women who are menopausal and postmenopausal. And it's never too late to start, says Jean Irion, PT, EdD, ATC, chair and director of the physical therapy program at Emory University in Atlanta and at Emory & Henry College in Virginia. She notes that studies have found that women who begin an exercise program in their 60s, 70s, or even 80s can slow bone loss.

Exercise also has been shown to reduce other disruptive side effects of menopause, such as hot flashes, insomnia, and painful intercourse, according to Olson.

Irion, who is board-certified in sports physical therapy, points out the benefits of various forms of exercise. Weight gain is common during and after menopause. Aerobic exercise, balance, and resistance training build bone and muscle strength. Building muscle tissue increases metabolism and burns more calories. Core strengthening activities such as planks improve the stability of lower abdominal muscles.

Cardiac health is important for women who are menopausal and postmenopausal, Irion continues. Changing hormone levels can lead to hypertension, and loss of estrogen causes microvascular changes on the cardiac wall that can contribute to heart disease. Enhancing cardiac health needn't require a solid hour of elliptical or exercise bike training, Irion notes—interval training increases heart activity as well.

At CSM, Litos said, "Heart disease is the leading killer of women pre-menopause, and estrogen is protective. But postmenopause, women are as affected by heart disease as are men. Women can lower their risk of heart disease by 80% with a healthy lifestyle."

High-impact activities, such as jumping, put force on bones to encourage their growth. "I want to target big muscle groups, so I do squats and lunges to get the glutes going," remarks Olson. She also suggests dynamic balance exercises.

Balance is important because women are more susceptible to falls as they age.¹⁰ Combination activities such as yoga, dancing, or tai chi challenge balance and posture and improve proprioception. Hip-strengthening exercises are beneficial because hips are a common site for fall-induced fractures. Resistance training builds bone mineral density.

Some PTs add another element to exercise programs. Olson incorporates Pilates-based interventions into her practice. She explains, "Pilates is fantastic for any age group. Its focus is on improving lower abdominal strength and promoting spine flexibility."

Pilates cues and strengthens the pelvic floor, Olson says—calling it a "fun way to do Kegels." Engaging women in activities that are interesting encourages them to continue with the exercises, she says.

Aquatic Approach

Irion advocates aquatic therapy for women in this phase of life. Her clinical practice emphasizes women's health, aquatic therapy, sports physical therapy, and occupational health. "When you look at women with a particular diagnosis, you have to ask, 'Might water offer them a comfortable and safe place to exercise?'" For menopausal and postmenopausal women, aquatic therapy provides multiple benefits.

First, though, the PT must understand the physical properties of water and fluid dynamics—including hydrostatic pressure, buoyancy, cohesion, and viscosity—and how they can benefit patients.

"Working in a gravity-resistant environment on land is challenging," Irion says. The properties of water enhance movement yet also provide resistance. In the therapy pool, the challenges of gravity dissipate. The pool can provide an enhanced environment for exercise.

Irion continues, "I love doing balance exercises with women in the water. It's fun, it's challenging, and patients don't have the fear of falling they experience on land."

In the water, a woman and her PT can work on site-specific strength training. Women can maintain better posture in the pool to strengthen their muscles and improve bone density, Irion says, adding that this can be especially helpful for those with osteoporosis. Litos adds that aquatic exercise reduces the number of falls that otherwise might occur with vertical high-intensity exercises.

No matter the format, physical activity improves quality of life for women and decreases pain associated with musculoskeletal changes. Litos explains, "Anyone who exercises can reduce their reliance on pain medication. That's why physical therapy has been shown to be more effective than opioids." Movement helps manage the pain.

Outreach to and Beyond Physical Therapists

Too often, though, PTs are not the first health care professionals considered by women who are experiencing difficulties from menopause. "We need to educate female patients to change their perceptions and encourage them to engage in proactive health behaviors to reduce their risks," Snowden says. "We have an opportunity to help women who are in midlife improve their long-term health and quality of life."

"There are several points of contact that need to be improved," Tanner says. Education starts with PTs themselves, who may not fully be aware of how they can help with menopause-related issues.

That could be because women's health education is not covered in detail in most DPT programs, Litos says. She urges that comprehensive coverage of pelvic health be included or expanded in the curricula. And after graduation, PTs with knowledge of women's health shouldn't be limited to outpatient orthopedics. Instead, Tanner suggests, pelvic floor therapy needs to be a part of home health physical therapy, inpatient geriatrics, and other settings.

Continuing education in this field is vital, say PTs interviewed for this article. Snowden and Litos developed and teach a continuing education course for SOWH called "(Pre) Menopause Matters in Physical Therapy: Early Planning for a Healthier Future" (www.womenshealthapta.org/menopausematters). It was designed, they say, to put PTs and physical therapist assistants at the forefront of menopause practice.

Outreach to physicians and other health care practitioners also bears improvement. "As health care is evolving, we recognize that a collaborative team approach is what's best for the patient," remarks Olson. PTs should encourage women to seek out specialists for different aspects of their care. For example, an endocrinologist can help with thyroid issues. A dietitian can get women on a healthy eating track. A mental health professional might be appropriate for patients with anxiety, depression, or body image issues.

Reaching Patients

But perhaps the most important audience is the patient herself. "I have had many patients comment they didn't know why it took so long to get to a pelvic health physical therapist," says Hartzell Leggin.

Snowden agrees. "Women are frustrated that health care providers don't offer more information and support related to menopause." Patients have asked for help with menopause-related health concerns for years, she says.

PTs, they add, should directly promote their services to the public. Recreation centers, churches, and community fairs are just some places where women's health PTs can present educational seminars, set up tables to distribute informational materials, and answer questions.

Tanner says, "Patients are our best advocates in terms of sharing information about what we can do." After experiencing the benefits of physical therapy, menopausal women can advocate for this care to their friends and family.

Statistically, women live a third of their lives or more postmenopause, Litos points out. Early preparation can vastly reduce risks for diseases associated with hormonal changes and aging, maintain bone health and muscle strength, and improve quality of life through the lifespan.

Thirteen years ago, when she was editor-in-chief of the *Journal of Women's Health Physical Therapy*, Nancy Rich, PT, PhD, wrote, "We must prepare women for menopause. We must educate women in their earlier years about the importance of strengthening the upper body to prepare for the day when the amount of estrogen decreases. Much like the discussions about developing bone strength to prevent osteoporosis, I propose that women should develop muscle strength to possibly prevent musculoskeletal problems."¹¹

The same holds true today. "Women who have a positive outlook and receive accurate health information about this natural transition in life do well through the menopause transition and beyond," Snowden says.

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Menopause in Brief

Menopause is defined as the time when the ovaries cease functioning and menstrual periods stop, marking the end of the reproductive years. A woman is considered to have reached menopause when she has stopped having a monthly period for 12 consecutive months. The North American Menopause Society points out, "It is not a disease. Menopause is a normal, natural event."¹ It occurs on average at age 51, and most often between the ages of 45 and 55.

A major effect of menopause is a significant decrease in estrogen, which can cause vaginal dryness, night sweats, and hot flashes. Estrogen loss also can increase the risk of certain diseases, such as osteoporosis, which leads to hip, wrist, and spine fractures. Approximately 50% of women over the age of 50 will experience an osteoporosis-related bone fracture.²

Menopause is the culmination of a process that can begin several years before the final menstrual period. The transitional stage leading up to menopause is called perimenopause, which lasts on average about 4 years. While life expectancy has increased over the years, the age of menopause has not changed during the past few centuries.

An estimated 6,000 American women reach menopause every day. With increasing life expectancy—half of all women who reach age 50 will live to be at least 80—many women will spend up to 40% of their life in the postmenopausal stage.

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