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**Hormone Therapy May Help Prevent Shoulder Pain and Loss of Motion in Menopausal Women**

*New study concludes that women not receiving hormone therapy have greater odds of adhesive capsulitis*

CLEVELAND, Ohio (October 12, 2022)—Women aged 40 to 60 years are most affected by adhesive capsulitis, a painful orthopedic disorder characterized by sudden shoulder pain and loss of range of motion. There has been limited research around the disorder’s predilection for perimenopausal women, but a new study found that hormone therapy may protect against it. Study results will be presented during The North American Menopause Society (NAMS) Annual Meeting in Atlanta, October 12-15, 2022.

Despite the fact that adhesive capsulitis was first diagnosed nearly 100 years ago, little is known about the cause of the disorder, which remains classified as “idiopathic.” Adhesive capsulitis primarily afflicts women often without significant injury to the shoulder. There are, however, several associated medical conditions, including thyroid dysfunction, diabetes, and breast cancer treatment. Steroid injections can shorten the course and severity of the condition if it is recognized in its early phase, but there is no known preventive or sex-specific treatment for it.

Considering the demographic most affected by adhesive capsulitis, the researchers in this new study involving nearly 2,000 participants suspected that estrogen (or the lack of it) may play a role. Estrogen is known to be involved in musculoskeletal function, stimulating new bone formation, promoting muscle growth and repair, maintaining connective tissue integrity, and reducing inflammation. Because menopause is characterized by a loss of estrogen and often occurs during the same age period (40-60 years), the researchers sought to determine whether hormone therapy is protective against adhesive capsulitis in menopausal women.

This is the first known study to evaluate the role of hormone therapy in the development of adhesive capsulitis in menopausal women. It concluded that women not receiving hormone therapy had greater odds of adhesive capsulitis. Although the researchers believe that additional studies are necessary to further evaluate this association, they believe that this study was sufficient to support the hypothesis that hormone therapy may be protective against the disorder.

“Many menopause symptoms fall outside the FDA-approved indications for systemic hormone therapy, including those involving the musculoskeletal system. Our collaborative study between the Departments

of Orthopedic Surgery and Ob/Gyn highlights this point and will hopefully lead to more research in this area,” says Dr. Anne Ford, coauthor of the study from Duke University Medical Center.

“As a female orthopedic surgeon in a field that is 94% male, I feel it is important to study sex-specific factors and treatment strategies that may benefit women with adhesive capsulitis. A disease that has such a strong predilection for women is unlikely to be truly idiopathic,” says Dr. Jocelyn Wittstein, coauthor of the study and faculty member of the Department of Orthopedic Surgery at Duke University Medical Center.

“Hormone therapy has already been proven to effectively manage many other symptoms that accompany the menopause transition. This study suggests that there may be an additional benefit in its ability to protect women at menopause against adhesive capsulitis. More research is needed in this area because the disorder can significantly affect a woman’s range of motion and overall quality of life,” says Dr. Stephanie Faubion, NAMS medical director.

Dr. Ford and Dr. Faubion are available for interviews before the presentation at the Annual Meeting.

Founded in 1989, The North American Menopause Society (NAMS) is North America’s leading nonprofit organization dedicated to promoting the health and quality of life of all women during midlife and beyond through an understanding of menopause and healthy aging. Its multidisciplinary membership of 2,000 leaders in the field—including clinical and basic science experts from medicine, nursing, sociology, psychology, nutrition, anthropology, epidemiology, pharmacy, and education—makes NAMS uniquely qualified to serve as the definitive resource for health professionals and the public for accurate, unbiased information about menopause and healthy aging. To learn more about NAMS, visit [www.menopause.org](http://www.menopause.org).