

Women, Hormones and Arthritis

ARTHRITIS ACTION FACTSHEETS



Dr Wendy Holden, Arthritis Action's Medical Advisor, summarises the role of hormones throughout a woman's life and how they impact on arthritis symptoms.

Do Hormones Affect Arthritis?

Some types of inflammatory arthritis, especially rheumatoid arthritis, are much more common in women - about 65% of people who have rheumatoid arthritis are female. No one knows why this is but hormones, especially oestrogen, as well as genetic and other environmental factors are likely involved.

Inflammatory Arthritis in Puberty

People can get inflammatory arthritis at any age. When someone with inflammatory arthritis goes through puberty, it can be a very turbulent time for their arthritis. Girls who have inflammation in the joints often have slightly delayed puberty, by up to about two years. We don't really understand why this is, but it delayed

puberty can lead to reduced adult bone mass which can be a problem in later life, so it is very important to control joint inflammation as soon as possible. This can not only help with pain and function but by increasing bone mass, it can prevent fragile bones later in life.

Periods and Arthritis

The menstrual cycle can have an effect on arthritis pain. Many women with inflammatory arthritis, such as rheumatoid and psoriatic arthritis, report that their joint pains are worse just before and during their period. This may be due to relatively low levels of oestrogen in the body during this time. When oestrogen levels are low, pain threshold reduces and pain increases. Similarly, at times of the month when oestrogen levels are highest just after ovulation, joint pains and swelling can often improve. Tracking your periods can help with understanding why some days seem more painful than others. Some, but not all women may find their joints benefit from hormonal contraception which leads to a steadier level of hormones through the cycle.

Pregnancy

During pregnancy, about 1 in 3 women with inflammatory arthritis find that their arthritis goes into remission, and for some this can be long-lasting. For others, about 6 weeks after childbirth when oestrogen levels drop, there can be a significant flare of joint pain and swelling.

Medical or surgical menopause

Women who are suddenly made menopausal for example due to fertility or breast cancer treatment, or because of surgical removal of the ovaries, will experience a sudden drop in oestrogen levels which can cause joint pains which can be severe. This is called 'menopausal arthralgia' and most commonly affects the hands and feet, though any joint can be involved. About half of all women who are prescribed anti-oestrogen medicines for breast cancer, for example tamoxifen or letrozole, develop joint pains, and these pains can be so severe that many women consider stopping the treatment.

Peri and post-menopause

The perimenopause typically lasts for up to 7 years, usually starting at around the age of 44 or sometimes earlier. During this time, female hormones fluctuate, and joint pains can start to develop. The impact of this is usually gradual but the pain can be disabling. About 60% of menopausal and perimenopausal women experience this menopausal arthralgia (meaning joint pains) but this issue is often overshadowed by other menopausal symptoms and can be dismissed as "normal" ageing. Menopausal arthralgia can wake some women at night, contribute to fatigue and cause difficulty with function, especially opening jars and lifting

objects such as heavy pans. Osteoarthritis can affect the same joints as menopausal arthralgia, especially the thumbs and small finger joints and they both typically present around the same time in a woman's life. Oestrogen reduction during the menopause is also associated with worse sleep and mood changes, both of which can contribute to increased joint pain so knowing which pain is which can be challenging.

Hormone Replacement Therapy (HRT)

Hormone Replacement Therapy (HRT) can help many women with menopausal arthralgia and can be safely prescribed for most women using different preparations, although it can take several months to feel the benefits. For women who are unable to use HRT, for example those with breast cancer or for those who prefer not to take HRT, menopausal arthralgia usually settles within a couple of years, and if caused by medication will usually stop once the medication is stopped.

Osteoporosis and fragility fractures

After the menopause, as oestrogen levels drop, bone density also drops. About 1 in 2 women over 50 will have a fragility fracture (a broken bone after a fall from a standing height or less), and this is never normal. Fragility fractures are not a normal part of getting older and many can be prevented. People with inflammatory arthritis are at increased risk of fragility fractures, so all women who have inflammatory arthritis, especially those who have a family history of fragility fracture or those who have already had a fragility fracture, should have regular bone health assessments from their GP.

Adopting a Healthy Lifestyle

All women of any age are encouraged to work on self-management strategies to maintain good joint, muscle and bone health. Aerobic exercise has anti-inflammatory effects and cannot damage the joints and resistance exercise using weights is essential to maintain muscle mass and improve joint stability to prevent falls. Muscle strength can be improved at any age and there is good evidence that resistance exercise helps with pain, does not increase inflammation and leads to a longer life. Eating a healthy diet can also help reduce inflammation and pain, as can looking after mental health and sleep.

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