MENOPAUSE AND EXERCISE

PROFESSIONAL

MENOPAUSE, EARLY ONSET MENOPAUSE AND PERI-MENOPAUSE

Menopause can be a natural age-induced process, or as a result of surgery such as a hysterectomy or oophorectomy, or as a side effect of treatment for cancers. Menopause is defined by The Royal Australian New Zealand College of Obstetricians and Gynaecologists (RANZCOG) as; 'The permanent cessation of menstruation. This diagnosis is made retrospectively, 12 months after the final menstrual period'.

Perimenopause is the initial stage of menopause and sees fluctuations in oestrogen, progesterone, follicular stimulating hormone and luteinising hormone levels, lasting anywhere between 1 and 10 years but with an average duration of 4 to 6 years. During perimenopause a woman's menstrual bleed may become irregular, either less frequent or more frequent, and also may become heavier or lighter. Symptoms of hot flushes, night sweats, sleep disturbances, joint pain, impaired memory and mood disturbances also begin during this perimenopausal period.

Early onset menopause is when a woman experiences her final menstrual cycle before the age of 45 years, and premature menopause is prior to the age of 40. Women who experience early onset or premature menopause, regardless of the cause, are at an increased risk of developing osteoporosis and cardiovascular disease and often have co-morbid mental health issues. Premature or early onset menopause may be as a result of pharmacotherapies or surgery.

THE BENEFITS OF EXERCISE FOR MENOPAUSE

Staying generally active and participating in an individualised exercise program can help with both symptom management of menopause and long-term health outcomes. The fall in oestrogen levels are responsible for many of the symptoms associated with menopause, and exercise can help with improved symptom management. Exercise can also help improve long-term health outcomes such as maintaining bone mineral density, reducing cardiovascular risk factors and maintaining a healthy weight range.

Exercise can help with management of:

- Vasomotor symptoms - hot flushes and night sweats
- Psychological symptoms - depression, anxiety and impaired memory and concentration
- Musculoskeletal symptoms – myalgias, arthralgias, joint and muscle pains, tendinopathies
- Headaches and dizziness
- Urinary and faecal incontinence and pelvic organ prolapse

Exercise in post-menopausal and peri-menopausal women can result in:

- Maintenance of bone mineral density
- Reduced risk of developing cardiovascular disease
- Improved endothelial function
- Improved insulin sensitivity
- Reduced risk of developing metabolic syndrome
- Improved quality of sleep
- Improved mental health and wellbeing
- Increased quality of life

THE PHYSIOLOGICAL EFFECTS OF EXERCISE

Musculoskeletal

The hormonal changes of menopause, especially the loss of the protective hormone oestrogen, causes skeletal effects including a more rapid reduction in bone mineral density, tendon degeneration, skeletal disc degeneration and loss of pelvic floor muscle tone. Resistance training and pelvic floor muscle training can help in loading these bones, muscles and tendons to maintain or reduce the risk of osteopenia, osteoporosis, fractures, pelvic floor dysfunction (such as urinary incontinence and pelvic organ prolapse), or chronic joint pain (like osteoarthritis).

Cardiovascular

The cardiovascular effects of menopause include endothelial dysfunction, increased systolic blood pressure, increased LDL cholesterol and triglycerides, and decreased HDL cholesterol. Aerobic exercise such as walking, swimming, bike riding, dancing or social sport can help improve all these cardiovascular health markers and reduce the risk of atherosclerotic changes.

Metabolic

Menopause also sees the risk of developing the metabolic syndrome as the hormonal changes lead to increased insulin resistance. Indigenous Australian, Polynesian and South Pacific Islander and Indian women are at heightened risk of developing the metabolic syndrome. Moderate intensity exercise, whether resistance training, aerobic training or a combination can help with improving insulin sensitivity.

OPTIMAL EXERCISE PRESCRIPTION

The benefits of exercise for post-menopausal women have been well researched. The primary aim of exercise prescription will vary depending on the woman's health concerns and goals, however an exercise program should meet the general physical activity recommendations of 150 minutes of moderate intensity aerobic exercise, or

75 minutes of vigorous exercise, and 2 non-consecutive days of resistance training per week. These are seen as the minimum requirements of adults for general health and well-being.

Exercise prescription for women going through menopause or post menopause should take into consideration exercise history, and also include pelvic floor muscle training, balance and power training. Exercise that can be completed in a social setting also has associated improvements in quality of life and program adherence.

Before beginning an exercise program all postmenopausal women should have their pelvic floor strength assessed by a women's health Accredited Exercise Physiologist (AEP), regardless of whether the women is nulliparous, primiparous or multiparous. If pelvic floor dysfunction is suspected, exercise prescription should aim to minimise large increases in intra-abdominal pressure and avoid excessive strain being placed upon the pelvic floor organs and muscles to reduce the risk of stress urinary incontinence and pelvic organ prolapse. This may include the exclusion of the Valsalva manoeuvre, certain abdominal exercises dependant on individual regressions, and high impact exercises such as running and jumping.

Women who report pelvic floor dysfunction, or have other chronic or complex health conditions, should be referred to a women's health AEP who can prescribe appropriate exercises and provide education on exercise modifications. Supervised pelvic floor muscle training has been shown to decrease perceived barriers to activity and help improve pelvic floor function by reducing urinary incontinence and pelvic organ prolapse symptoms which then helps support return to activity.

RELATED INFORMATION AND REFERENCES

Exercise is Medicine Australia www.exerciseismedicine.org.au

Exercise Right www.exerciseright.com.au

Find an Accredited Exercise Physiologist www.essa.org.au

Australasian Menopause Society
www.menopause.org.au/about-ams

Pelvic Floor First www.pelvicfloorfirst.org.au

If you have any concerns about the safety of your patient in commencing an exercise program, please consider referral to a Sport and Exercise Physician.

Find a Sport and Exercise Physician www.acsep.org.au/

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2. Pines, A., & Berry, E. M. (2007). Exercise in the menopause–an update. Climacteric, 10(sup2), 42-46.
3. Daley, A., Stokes-Lampard, H., Thomas, A., & MacArthur, C. (2014). Exercise for vasomotor menopausal symptoms. Cochrane Database of Systematic Reviews, (11).