Menopause - What happens and when?
The menopause occurs in all women. It can occur when the ovaries spontaneously fail to produce the hormones estrogen and progesterone, when the ovaries fail due to specific treatment such as chemotherapy or radiotherapy, or when the ovaries are removed, often at the time of a hysterectomy. The resulting low and changing levels of hormones, particularly estrogen, are thought to be the cause of menopausal symptoms in many women.

Menopause means the last menstrual period. Periods stop because the low levels of estrogen and progesterone do not stimulate the endometrium (lining of the womb), in the normal cycle. Hormone levels can fluctuate for many years before eventually becoming so low that the endometrium stays thin and does not bleed.

Perimenopause is the stage from the beginning of menopausal symptoms to the postmenopause.

Postmenopause is the time following the last period and is usually defined as more than 12 months with no periods in someone who has their ovaries, or immediately following surgery if the ovaries are removed.

The average age of the menopause is 51 years but can occur much earlier or later. Menopause occurring before the age of 45 is called an early menopause and before the age of 40 is a premature menopause.

Diagnosis of Menopause
The diagnosis of the menopause should be made from a combination of factors with most emphasis being placed on the pattern of periods and presence of menopausal symptoms. In the late 40’s, early 50’s the absence of, or infrequent periods along with symptoms such as flushes and sweats can alone be used to diagnose the menopause and blood or urine tests are unnecessary. Occasionally, measuring hormone levels can be helpful but are rarely essential.

Menopausal symptoms
Menopausal symptoms, which affect about 70% of women, are thought to be due to the changing hormone levels, particularly estrogen, but many other factors such as diet and lifestyle, exercise and other medications can also influence symptoms.

Therefore for some women, lifestyle factors such as stopping smoking, eating healthily, reducing caffeine, reducing alcohol intake, reducing stress and taking regular exercise can considerably help the symptoms of the menopause.

For others hormone replacement therapy (HRT) may be beneficial, and indeed menopausal symptoms are the main reason for using HRT.
What are the symptoms of the menopause?

Early menopausal symptoms include Physical, Sexual and Psychological problems.

**Physical** symptoms include:
- Hot flushes
- Night sweats
- Insomnia
- Palpitations
- Joint aches
- Headaches

Flushes and sweats (known as vasomotor symptoms) are due to altered function of the body’s temperature control. They can occur without warning but may be precipitated by a hot drink, change in room temperature, alcohol and stress. Headaches, palpitations and dizziness may be associated with vasomotor symptoms. Insomnia (sleeplessness) or disturbed sleep may in part be due to night sweats, control of which can improve sleep patterns. Joint aches can be a common symptom but their association with the menopause often goes unrecognised.

**Psychological** menopause symptoms such as mood swings, irritability, anxiety, difficulty coping, forgetfulness and difficulty concentrating may be related to hormonal changes, either directly or indirectly, for example due to sleep disturbance. However, other life events such as worry over teenage children, elderly relatives and stresses of work may also contribute to such “symptoms” around the time of the menopause.

**Sexual** problems may be caused by vaginal dryness due to low estrogen levels, resulting in discomfort during intercourse. Effective treatments are available. As men and women get older, interest in sex may decrease but this particularly affects women. Treatment of other menopausal symptoms may indirectly improve libido by improving feelings of well being and energy levels e.g. by improving sleep through control of night sweats, but restoring hormone levels can also improve sensation. Hormonal treatment may not however be the “magic” answer as relationship problems can also affect libido.

Later menopause symptoms are due to the effects of lack of estrogen on the bladder and vagina and include:
- Passing urine more frequently by day and night
- Discomfort on passing urine
- Urine infection
- Leakage of urine
- Vaginal dryness, discomfort, burning and itching.

These symptoms are extremely common and can cause significant distress but, often due to embarrassment, are under-reported and hence under-treated. Local estrogen preparations (vaginal tablet, creams, or vaginal ring) can be very helpful in relieving these symptoms. Low dose vaginal estrogen can be used when systemic estrogen is inappropriate, and can be continued in the long term without any known adverse effects. Non hormonal vaginal moisturizers can also be used.

**Other** later menopause symptoms include skin and hair changes due to the falling estrogen levels.

**Skin** may become dryer, thinner, less elastic and more prone to bruising. Skin itching can also occur. Skin symptoms often respond to estrogen replacement.
Hair thinning, dryness and the growth of unwanted hair can also be explained by the lack of estrogen.

The two most important long-term effects of reduced estrogen levels involves the effects on the skeleton and the cardiovascular system.

**Skeleton** With age and reduced estrogen levels, particularly when the menopause occurs before the age of 45, there is an increased risk of progressive loss of bone strength leading to bone thinning and fragility (osteoporosis). Although bone loss occurs in both women and men, the loss occurs more rapidly and is more common in women, mainly due to menopause.

Bone thinning itself does not cause any symptoms with osteoporosis being known as the “silent disease”. The first warning sign can be a fracture after a simple fall or bump (a *low trauma fracture*). It is estimated that by the age of 70 that one third to one half of women will have had an osteoporosis related fracture.

**Risk factors for osteoporosis include:**

- Breaking a bone after a simple fall or bump
- Premature (before age 40) or early (before age 45) menopause
- Family history of osteoporosis
- Maternal history of hip fracture
- Long term (more than 3 months) or high dose use of steroids
- Smoking
- Excess alcohol intake
- Poor dietary intake of calcium
- Lack of weight bearing exercise

♦ Medical conditions which may affect the absorption of food including; ulcerative colitis, crohns disease, celiac disease, gastric surgery and liver disease.

♦ Certain medications e.g. long term anti-epileptic medications, aromatase inhibitor medications which are often used as part of breast cancer treatment.

**General factors which can therefore help to reduce the risk of osteoporosis include:**

- Stopping smoking
- Limiting alcohol intake (keeping below 14 units per week)
- Avoiding excess caffeine by limiting tea / coffee / fizzy drinks
- Taking regular weight bearing exercise, such as walking
- Having a healthy, varied, well balanced diet which is rich in calcium, e.g. from dairy products, green leafy vegetables and oily fish.

HRT can help to prevent bone loss and reduce the risk of fracture, and is particularly useful for prevention of osteoporosis in women who have had an early menopause and for those women with menopausal symptoms.
Cardiovascular Disease (CVD) is the leading cause of death in women after the menopause. Many women perceive breast cancer as their biggest concern when in fact women are nine times more likely to die from heart disease than breast cancer. As estrogen levels fall, often from the mid forties onwards, the protective effect on the heart is lost and changes occur which can lead to an increased risk of heart disease.

Risk factors for CVD: -

♦ **Being overweight** – obesity is more common in women than in men after the age of 45 and during the menopause there is a change in body fat distribution with the “pear” shape changing to the “apple” shape which can increase the risk of heart disease.

♦ **Blood pressure** - high blood pressure (hypertension), is a major risk and control of this helps to reduce the risk of heart disease and stroke.

♦ **Cholesterol** – menopause is associated with a gradual increase in cholesterol, particularly the “bad” cholesterol which can increase the risk of heart disease. Medications are now often prescribed for the control of cholesterol.

♦ **Smoking** – one of the most important risks for heart disease.

♦ **Diabetes** – is becoming increasingly common with the risk of heart disease from diabetes being higher in women.

Reducing the risks of CVD: -

♦ **Stop smoking**

♦ **Maintain a healthy weight** – eat a healthy, varied, well balanced diet, low in fat, high in fibre and aim for 5 portions of fruit / vegetables per day.

♦ **Take regular weight bearing exercise** – such as brisk walking

**HRT and the Heart:** -

There have been many studies on the effects of HRT and the heart. Current evidence shows no increased risk in heart disease when HRT is started under the age 60 and may in fact reduce the risk of heart disease before the age of 60 and within 10 years of the menopause, however further evidence is required.

There appears to be a small increase risk of stroke in women on non-oral form of HRT, but not with trans-dermal (patch or gel) HRT.

**Conclusion**

All women go through the menopause at some time in their life. Individual experiences of the menopause differ and the decision on how women manage this will depend on a number of factors including age of menopause, the presence of any symptoms and how these affect quality of life, and osteoporosis risk. Some women prefer to take a more “natural” approach to menopause management whilst some women will choose to go on to hormone replacement therapy (HRT).

In all women dietary and lifestyle measures play an important part, particularly in menopausal years, in reducing symptoms promoting general well being, and in reducing the risks of heart disease and osteoporosis. Women should therefore ensure that they have adequate exercise and a healthy well balanced diet as part of menopause management.
Useful Contact numbers / Addresses:

Website:  www.menopausematters.co.uk
         www.bladdermatters.co.uk

Dumfries based Helpline - 01387 241121, Sr Katrina Martin, Menopause/ Osteoporosis Nurse Specialist Thursday mornings 9am to 12 noon (Gives advice / information about menopause, HRT, alternatives, and osteoporosis).

British Menopause Society - www.thebms.org.uk

Women’s Health Concern - www.womens-health-concern.org

National Association for Premenstrual Syndrome (NAPS)
Telephone – 0844 8157311
Email; contact@pms.org.uk
Website - www.pms.org.uk

Royal Osteoporosis Society, Manor Farm, Skinner’s Hill, Camerton, Bath
Telephone – 0176 147 1771 (Office) 0808 800 0035 (Helpline)
Website - www.theros.org.uk

Daisy Network, PO Box 71432, London, SW6 9HJ
www.daisynetwork.org.uk
(Daisy Network is a registered charity for women suffering premature menopause)