

Treatment induced Menopause

Gynaecology Department



Patient information leaflet

This leaflet has been written for those women who unfortunately will have or have had an early menopause which has been caused by their cancer treatment.

What is the menopause?

The menopause is a natural process, during which the levels of the female hormone oestrogen gradually fall. In response, the pituitary gland in the brain produces more follicle-stimulating and luteinising hormones, which may cause hot flushes and night sweats. As a result, women's periods become irregular, and eventually stop. Physical and psychological changes may occur and there is an increased risk of osteoporosis (brittle bone disease) and heart disease. (Table 1)

The average age for the menopause is 52 years, and a woman is described as post-menopausal when her period has not returned for one year.

Some treatments for gynaecological cancer may lead to early ovarian failure, and bring menopausal symptoms earlier. This is known as treatment-induced menopause.

What is treatment-induced premature menopause?

This differs from a natural menopause, as there is a sudden rather than a gradual change in hormonal levels as a side effect because of cancer treatment. How quickly this happens will vary from woman to woman on the treatment they receive. Surgical removal of the ovaries has an immediate effect; however chemotherapy and radiotherapy may take several months before menopause occurs. In these cases it is always advised that contraception is used until it is certain that the menopause has occurred.

A woman is described as prematurely menopausal when she experiences a sudden onset of symptoms, her periods stop, and do not return within a year. The overall impact of the menopause may be increased by the changes and personal challenges caused by a diagnosis of cancer, the treatment and its side effects. With an early treatment-induced menopause, women have a longer time without the natural benefits of oestrogen, so may wish to consider how best to manage the change.

After the menopause, women cannot get pregnant. Many women have not completed their families and following the shock of a cancer diagnosis may be devastated to hear that they will also never become pregnant. Any changes to fertility will be discussed with you by your consultant before you sign any consent for cancer treatment.

Your Clinical Nurse Specialist and Consultant are always available to discuss any concerns before treatment commencing, throughout and following cancer treatment. The emotional effects can be wide-ranging, and occur at different times. They can be intense and surprising. You may feel that you need to concentrate on your treatment and the emotional affect appears later.

Surgery

Both ovaries removed (bilateral salpingo oophorectomy): Sudden onset of menopausal symptoms can occur after the operation.

One ovary removed or simple hysterectomy: even when one ovary remains, there can occasionally be an early onset of the menopause.

Surgical movement (transposition) of ovaries out of treatment site: It may be possible to move the ovaries out of the pelvis so that they are less likely to be affected by radiotherapy. This may be performed using key-hole surgery. However, the blood supply to the ovaries can be affected, and early menopause may occur despite this procedure.

Chemotherapy

The impact of various chemotherapy agents (listed on table 2) is dependent on:

Type of drug: some are known to be more toxic on ovaries

Dose: high doses increase the risk of ovarian failure, though this is unpredictable.

Drug combinations: increased toxicity to ovaries with more than one drug.

Age: increased risk of ovaries failing over the age of 35. Very young women are also at a slightly increased risk.

Fertility status/previous treatments: in the general population 1-3% of all women less than 40 years' experience premature ovarian failure (no known cause). Previous gynaecological problems may reduce ovarian function before cancer treatment.

Sometimes you will be offered an injection of a drug to 'shut down' the ovaries to give them more protection from chemotherapy. It may take several months for the ovaries to recover from this and for hormone function to return.

Pelvic radiotherapy

All women undergoing pelvic radiotherapy are at risk of their ovaries failing. This will be discussed with you before any treatment starts and any movement of ovaries offered if appropriate.

Table 1

Symptoms and risks associated with the menopause:

Short term/immediate symptoms:

Hot flushes, mood changes, night sweats, poor concentration, poor memory, anxiety, palpitations, irritability, insomnia, loss of self-esteem.

Intermediate symptoms:

Vaginal dryness/painful intercourse, skin thinning/dryness, loss of sex drive/desire, incontinence/bladder symptoms, joint aches and pains, infertility.

Long-term risks:

Heart disease and Osteoporosis.

Table 2

Impact of various chemotherapeutic agents on ovaries:

Severe effects on ovaries:

Chlorambucil, Cyclophosphamide, Melphalan.

Moderate effects on ovaries:

Cisplatin, Carboplatin, Adriamycin, Etoposide.

Unknown effects on ovaries:

Taxol, Topotican, Caelyx, Gemcitabine.

What can you do to help yourself?

Infertility

Many women are devastated when they discover that the treatment they need for their cancer will also mean they can no longer have any children. Infertility is very hard to come to terms with, especially if you were planning to have children in the future or to have more children to complete your family. The sense of loss may be very painful and distressing for people of all ages.

People vary in their reactions to the risk of infertility. Some women may come to terms with it more quickly and feel that dealing with the cancer is more important. Others may find that they accept the news calmly when they start treatment, and find that the impact doesn't hit them until the treatment is over and are sorting their life again. There is no right or wrong way to react. Your partner, if you have one, will need consideration in any discussion about fertility and future plans. You will both need to speak to a professional specialising in fertility. Your clinical nurse specialist and consultant can help you with any concerns.

What can you do to help yourself?

Every woman is different and symptoms, severity and duration will vary, and may determine the management option you choose. Some choices are based on other women's experiences of what they found useful and anecdotal evidence rather than proven research trials.

Hot flushes

This is the most common symptom, and affects four in five women. Flushes can occur at any age if oestrogen levels are reduced, and vary in severity and duration. You may try the following:

- Keep a diary of your hot flushes; you may see a pattern developing. You may have more hot flushes at a particular time of day or in a particular situation. You may then be able to avoid the activity or situations if you feel they exacerbate the frequency of the flushes.
- Choose clothes carefully: wear **natural fabric** next to the skin rather than synthetic. Cotton nightclothes and bed linen may be more comfortable, particularly if you suffer from night sweats. Loose clothing in layers will enable you to remove them more easily during a hot flush.
- Find ways to **cool down** quickly: keep iced water nearby, use a spray to refresh yourself, and carry a small fan or pack of wipes. Take cool showers and keep the room well ventilated.
- Regular **exercise** improves circulation, and may help reduce the intensity and frequency of hot flushes as the body adapts to coping with extremes of temperatures. Exercise is important for healthy heart and cardiovascular system, maintaining strong, healthy bones, improving mood and in promoting overall well-being. Even a walk, swim or cycle will help in the prevention of osteoporosis and may improve symptoms like hot flushes and sweats.
- Limit **food and drinks** which trigger hot flushes and night sweats. These may include spicy hot foods, salty dishes, sugary foods, chocolate, alcohol, tea, coffee, and soft drinks containing caffeine. Limiting hot drinks at night may help to reduce night sweats. These affect the blood vessels, and make you prone to flushing.

- **Relaxation** techniques; any exercise which helps you unwind and reduce stress may help your hot flushes. Deep breathing exercises, visualisation and listening to relaxing music may be useful. It is important to reduce the amount of stress which can increase, hot flushes, sweats and heart disease. Getting enough rest and relaxation will help to reduce stress. A soak in a hot bath or reading a good book could help.
- **Complementary therapies:** may produce a feeling of wellbeing during the menopause and help you cope with hot flushes. It is essential to consult a qualified therapist specialising in the field and discuss your Hospital Consultant. Lots of women find acupuncture helpful – if off chemo
- **Gammalinolenic acid (GLA):** is found in evening primrose oil. There are many brands available containing various amounts of GLA. Always follow the instructions regarding daily dose, or check with your nurse or doctor. Many women report that they find these oils useful in reducing hot flushes.
- Women have reported benefits from **vitamin B6** (pyridoxine) during the menopause. However, research has not proved its suggested benefits in reducing hot flushes. It is essential you check with your nurse or doctor before starting vitamin B6 and it should be only taken at the recommended dosage as some side effects have been reported with high doses.
- If you smoke it may help to either cut down or stop: it is reported that smoking can trigger hot flushes. Smoking has a toxic effect on bone by stopping the construction cells from doing their work. It's another good reason to try to give up.
- According to research enjoying a glass of wine could actually help your bones. However the current UK guidelines advise limiting your alcohol to 14 units for women.

What is a healthy diet?

A healthy diet is important for good health. It can help to improve your general wellbeing and manage your weight. Eating well can reduce the risk of developing conditions such as heart disease, stroke, some cancers, diabetes and osteoporosis.

It is important to include a wide variety of foods from each of the main food groups. These include:

- Fruit and vegetables. Have at least 5 portions every day. Eat a variety of types and colours.
- Starchy foods, such as rice, pasta, bread and cereals. Try to include a moderate amount of wholemeal/grain varieties at each meal.
- Protein-rich foods such as meat, fish, eggs and pulses. Choose lean cuts and include oily fish, e.g. salmon and mackerel, at least once a week.
- Dairy foods. Aim for 2-3 portions of low fat products each day.

Try to reduce your intake of fats, oils and fatty foods and foods that are high in sugar. Always choose low fat/sugar or diet options.

What about vitamin and mineral supplements?

A healthy, balanced diet should provide all the vitamins and minerals your body needs. This is certainly a lot tastier than pills! Beware of books and websites that recommend large amounts of vitamins and minerals as they may cause more harm or stop your cancer treatment working.

Vitamin E

It has been suggested that vitamin E may help reduce hot flushes. However there are no clinical trials to suggest that supplements should be taken. The best way of taking vitamin E is through your diet.

Foods high in vitamin E: Sunflower Oil, vegetable oil, polyunsaturated margarines and salad dressings, leafy green vegetables, wheat-germ, wholegrain, liver, egg yolks, nuts, seeds

Isoflavones (phyto-oestrogens)

You may have heard of the term phyto-oestrogen and wondered what it is and should you be taking it or avoiding it. Recent studies have found that Chinese and Japanese women suffer fewer menopausal symptoms and this may be due to a diet rich in soya. Soya contains weak oestrogen-like compounds called **Isoflavone**.

It may be helpful to include soya as part of your normal diet to see if it reduces your menopausal symptoms. Soya flour, milk, yoghurt and tofu are all widely available.

Calcium

Calcium is important throughout life, but particularly following the menopause. More calcium is lost from bones at this time and can increase your risk of developing osteoporosis. If possible, include plenty of calcium-rich foods in your diet (see below). However if you are unable to eat them, consider taking a supplement which contains at least 800mg of calcium per day.

Foods high in calcium: Milk and milk products including yoghurt and cheese, tofu, almonds, sesame seeds, kale, watercress, tinned sardines and pilchards, whitebait, dried apricot.

Vitamin D

Vitamin D is vital to help the body absorb calcium; it helps to control the amount of calcium and phosphate in our bodies. Both are needed for healthy bones, teeth and muscles. It is formed from the action of sunlight on our skin. It is formed during the summer months by the sun on our skin, and is stored in our fat so that we have enough to last through the winter.

- It is found naturally in a small number of foods, including oily fish, red meat, liver and egg yolks. It is also found in fortified foods like breakfast cereals and fat spreads. However, it's difficult for us to get the recommended amount of vitamin D from food alone.

- Vitamin D Public Health England suggests that adults should have 10 micrograms (mcg) of vitamin D every day. It is suggested this is taken as a supplement particularly during autumn and winter. People who have a higher risk of vitamin D deficiency are advised to take a supplement all year round
- Studies have also shown that vitamin D and calcium supplements can help to cut the risk of osteoporosis; thereby reducing the risk of broken hips and bones.
- If you have a particular problem and feel you would benefit from a referral to the St Luke's Cancer Centre dietitians, please speak to your nurse or doctor.

What is Osteoporosis

- **The bones in our skeleton are made of a thick outer shell and a strong inner honeycomb mesh of tiny struts of bone.**
- Osteoporosis means some of these struts become thin, which makes the bone more fragile and prone to break after a minor bump or fall. These broken bones are often referred to as fragility fractures. Although fractures can occur in different parts of the body, the wrist, hip and spine are most commonly affected.

Your bones

- Bones contain collagen (protein), calcium salts and other minerals. Each bone is made up of a thick outer shell known as cortical bone and a strong inner mesh of trabecular bone which looks like a honeycomb. Bone is alive and constantly changing throughout life. Old, worn out bone is broken down by cells called osteoclasts and replaced by bone building cells called osteoblasts, in a process of renewal called bone turnover. In childhood, osteoblasts work faster enabling the skeleton to increase in density and strength. During this period of rapid bone growth, it takes the skeleton just two years to completely renew itself. In adults the process takes seven to ten years.

- Bones stop growing in length between the ages of 16 and 18, but bone density continues to increase slowly until a person is in their mid-20s. At this point the balance between bone demolition and bone construction stays stable. After the age of 35, bone loss increases very gradually as part of the natural ageing process. This bone loss becomes more rapid in women for several years following the menopause and can lead to osteoporosis and an increased risk of broken bones, especially in later life.

Consequences of Osteoporosis

- Having osteoporosis does not automatically mean that your bones will break; it just means that you have a 'greater risk of fracture'. Thin, fragile bones in themselves are not painful but the broken bones that can result, can cause pain and other problems. Osteoporosis does not generally slow or stop the healing process. Bones that break because of osteoporosis will still heal in the same way as they do in people who do not have osteoporosis, which is usually about six to eight weeks.

Hormone Replacement Therapy

- Hormone Replacement Therapy (HRT) usually involves the hormone oestrogen. This hormone is often given to women to help relieve the symptoms of the menopause. Oestrogen can be taken as a tablet or through the skin via a patch or gel. If a woman has not had a hysterectomy she will need to take another hormone called progesterone as well as oestrogen for all or part of the month. This stops the lining of the womb building up.
- Vaginal oestrogen can also be given as a cream, pessary or ring to help with symptoms of soreness and dryness. It may be given on its own or with HRT.

How long should you take HRT?

- It is normally recommended that women who have had an early treatment-induced menopause should take HRT until they are at least 50 years old.

Who cannot take Hormone Replacement Therapy (HRT)?

- The presence of some cancers may mean we will not recommend HRT, particularly if they are cancers with hormone sensitivity. We will discuss these individually with you and ask for further testing of biopsies if required. Symptoms can be controlled with other medications, which can be prescribed by your doctor.
- Some research showed that there may be some evidence of an increased risk of breast cancer. This research is not conclusive. Any concerns can be discussed with your doctor.

Can I stop using contraception?

- Contraception must be used for at least two years after a definite diagnosis of the menopause, if you have not had surgery to remove the uterus (womb). If you are under 50 years of age and not had a hysterectomy; the exact date of the menopause can be difficult to know if HRT is started for symptom relief and before periods stop.
- HRT is not a contraceptive and makes it difficult to say when a woman is infertile. If you have received chemotherapy or radiotherapy to the pelvis it is hard to determine the exact date of menopause and contraception is always recommended until menopause is confirmed by a blood test which measures hormone levels.

Reduced libido

- When menopause occurs it is not uncommon for women to experience a reduction in libido. Contact your Clinical Nurse Specialist or Doctor to discuss this if it is a concern. There is medication to help restore libido.

Vaginal dryness

- Water-based lubricants are available to use Replens® and Liquid Silk ® can be prescribed by your GP. Please ask your Clinical Nurse Specialist or doctor if you need to discuss any concerns.

References

- www.nos.org.uk (national osteoporosis society)
- www.menopausematters.co.uk

Further information

The Fountain Centre

Level B, St Luke's Cancer Centre
Royal Surrey County Hospital
GU2 7XX

Telephone: 01483 406618
www.fountaincancersupport.com

The Olive Tree

Sussex Annex
Crawley Hospital
Crawley, Surrey
RH11 7DD

Telephone: 01293 534465

The Macmillan Centre

East Surrey Hospital
Redhill
Surrey RH1 5RH

Telephone: 01737 304176

National support information

Macmillan Cancer Backup

Freephone: 0808 800 1234
www.macmillan.org.uk

Useful addresses

The Amarant Trust

Head Office: 80, Lambeth Road, London, SE1 7PW

Helpline: 01293 413000 (11.00–18.00 Monday–Friday)

The National Osteoporosis Society

PO Box 10, Radstock, Bath, BA3 0PJ

Helpline: 0845 4500 0230 (09.00–17.00 Monday–Friday)

www.nos.org.uk

Gynae-Oncology Clinical Nurse Specialists

Royal Surrey County Hospital

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Level B

Telephone: 01483 571122 ext 2038

Frimley Park Hospital

Telephone: 01276 526757

East Surrey Hospital:

Telephone: 01737 768511 ext 6774

Ashford and St. Peters Hospital

Telephone: 01932 872000 ext 6712

Contact details

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PALS and Advocacy contact details

Contact details of independent advocacy services can be provided by our Patient Advice and Liaison Service (PALS) who are located on the right hand side as you enter the main reception area. PALS are also your first point of contact for health related issues, questions or concerns surrounding RSCH patient services.

Telephone: 01483 402757

Email: rsc-tr.pals@nhs.net

Opening hours: 9.00am–3.00pm, Monday to Friday

If you would like information documents in large print, on tape or in another language or form please contact PALS.

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