



## Treatment-induced Menopause: Facing the Issues

### What is the menopause?

The menopause is a natural hormonal process, during which the woman's oestrogen levels gradually fall, and there is an increase in follicle stimulating and luteinising hormone. As a result, the woman's periods become irregular, and eventually stop altogether. She may experience physical and psychological changes and there is a risk of osteoporosis and heart disease (see Table 1).

The average age for the menopause is 50 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 premature ovarian failure, and induce early menopausal symptoms.

### Chemotherapy

The impact of various chemotherapeutic agents (listed in Table 2) is dependant on:

- ▼ Type of drug used: some drugs are known to be more toxic on ovaries.
- ▼ Dose: high dose increases risk of ovarian failure, but this is individual and unpredictable.

- ▼ Combination drugs: increased toxicity to ovaries with more than one drug.
- ▼ Age: increased risk of ovaries failing over the age of 35. Younger women are also at risk, but may be several years later.
- ▼ Fertility status/previous treatments: in general population 1-3% of all women under 40 years experience premature ovarian failure (no known cause). Also dependent on any previous gynaecological problems and general well being, which may reduce ovarian function before cancer treatment.

### Surgery

- ▼ **Both ovaries removed (bilateral oophorectomy):** sudden onset of menopausal symptoms can occur post-operatively.
- ▼ **One ovary removed or simple hysterectomy:** Even when one ovary remains, there may be an advance onset of the menopause, but does not usually occur immediately.
- ▼ **Oophoroplexy (moving the ovaries):** Surgical transposition may alter the blood supply to the ovaries, and can induce a premature menopause. However this is uncommonly used in the treatment of ovarian cancer.

Table 1

#### Short term/immediate symptoms

- ▼ Hot flushes
- ▼ Anxiety
- ▼ Mood changes
- ▼ Palpitations
- ▼ Night sweats
- ▼ Irritability
- ▼ Poor concentration
- ▼ Insomnia
- ▼ Poor memory
- ▼ 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
- ▼ Osteoporosis
- ▼ Possible risk of Alzheimer's disease

**Table 2**

**Drugs with severe effects on ovaries**

- ▼ Chlorombucil
- ▼ Cyclophosphamide
- ▼ Busulfan
- ▼ Melphelan

**Drugs with moderate effects on ovaries**

- ▼ Cisplatin
- ▼ Carboplatin
- ▼ Adriamycin
- ▼ Etoposide

**Drugs with less effect on ovaries**

- ▼ Methotrexate

**Drugs with unknown effects on ovaries**

- ▼ Taxanes
- ▼ Topotecan
- ▼ Caelyx

Research on these newer drugs is limited. They are thought to have a moderate effect on ovarian function, but there remains a degree of uncertainty for the women

▼ **Pelvic radiotherapy:** Ovaries are markedly susceptible to radiation effects. But this is dependent on:

a) Radiation dosage: 2-3 fractions can result in premature infertility and 10-13 fractions can induce an early onset menopause. Symptoms may not always occur immediately, more commonly occur within a few months of treatment

b) Women's age: Radiation tolerance of the ovaries is reduced over age 35 years, but all women undergoing pelvic radiotherapy are at risk of the ovaries failing.

### ***What is a treatment induced premature menopause?***

This differs from a natural menopause, as there is a sudden rather than gradual change in hormone levels as a direct side effect of cancer treatment. How quickly this will occur can vary from woman to woman, and also depends on the type of treatment. For example, surgically removing the ovaries will have an immediate effect, but chemotherapy and radiotherapy can take several months before symptoms of the menopause occur. (See table 2.)

A woman is described as prematurely menopausal when she experiences a sudden onset of symptoms, her period stops, and does not return within a year. At a time when a woman is undergoing change and personal challenge relating to a cancer diagnosis, the treatment and its side effects, the overall impact of the menopause may be exacerbated. The fact that with an early induced menopause the

woman has a prolonged period without the natural benefits of oestrogen, she may wish to give particular consideration to how she can manage the change. There are many choices, and this article will focus on life style management and non-hormonal management of the menopause.

### ***What can the woman do to help herself?***

Each woman is different, and the type of symptoms, severity and duration will vary, and may determine the management option she chooses to try. Some of the 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 women report, affecting four out of five women. They can occur at any age if oestrogen levels are reduced, and vary in severity and duration.

You may wish to 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 be able to avoid activities at those times or avoid some situations if you feel they exacerbate the frequency of the flushes.
- ▼ Choose your clothes carefully: wear natural fabrics next to your skin rather than synthetic. Cotton night clothes and bed linen may be more comfortable, particularly if you suffer

from night sweats. Loose clothing and wearing layers will enable you to remove them more easily during a hot flush.

- ▼ Find ways to cool down quickly: keep a bottle of iced water near you, use a spray such as "evian spray mist", and carry a small fan or a pack of moist wipes. Take cool showers, and keep the room well ventilated, particularly at night if prone to night sweats.
- ▼ Cut down on smoking (and if possible stop completely): it is reported that the first puff of each cigarette can trigger hot flushes.
- ▼ Take regular exercise: it improves your circulation, and may help manage or reduce the intensity and frequency of hot flushes as the body adapts to coping with extremes of temperature.
- ▼ Limit foods and drinks which trigger your hot flushes: this is individual to each woman. If you note that certain foods and drinks trigger hot flushes and night sweats, try to reduce them in your diet. These may include spicy hot foods, salty dishes, sugary goods, chocolate, alcohol, tea, coffee and soft drinks containing caffeine. Limiting hot drinks late at night may help to reduce night sweats. These affect the blood vessels, and may make you prone to flushing.
- ▼ Relaxation techniques: any exercises which help you unwind and reduce stress may help you to manage the hot flushes. Deep breathing exercises, visualisation and listening to relaxing music or tapes may be useful.
- ▼ Complementary therapies: therapies that may promote a feeling of well being during the menopause, and may help you cope with the hot flushes are: aromatherapy, homeopathy, massage, reflexology, herbal medicine, acupuncture and yoga. It is essential that you consult a qualified therapist specialising in the field, and also liaise with the doctor treating your cancer.
- ▼ Taking gammalinolenic acid (GLA): this is found in evening primrose oil and efemast, and there are many brands available, containing various amounts of GLA (which is thought to be the active ingredient). Always follow the instructions regarding daily dose on the label, or check with your doctor or nurse. Many women have reported that they have found these oils useful in reducing hot

flushes, however, research has not proved their value.

- ▼ Vitamin B6 (pyridoxine): women have reported benefits from this vitamin during the menopause. However, a placebo response has been thought to be quite likely, and research has not proved its suggested benefits in reducing hot flushes. It is important that you check with your doctor before using vitamin B6, and it should only be taken in small dosages (check recommended dose on packet). Side effects have been reported with high dose vitamin B6.
- ▼ Clonidine (Dixarit): this form of medication may reduce the severity and frequency of hot flushes. Like all drugs, it may cause side-effects: dry mouth, dizziness and nausea have been reported. Clonidine is being used less and less to treat hot flushes during the menopause, as new studies indicate its effectiveness is low.
- ▼ Progesterone: this form of medication may be prescribed to reduce or relieve hot flushes. Side effects may include abdominal bloating, breast tenderness, increased appetite and mood swings have been reported. It is usually only prescribed short-term if being used to treat hot flushes and it may not suit every woman.

## ***Vaginal dryness***

- ▼ Water based lubricants are recommended rather than oil based such as KY Jelly (available to buy over the counter), Replens (available to buy over the counter) and Astraglide (available by mail order).

## ***Osteoporosis***

The National Osteoporosis Society recommends the following daily allowances of calcium:

Menopausal woman without HRT – 1500 mg

Menopausal woman with HRT – 1000 mg

The body absorbs calcium from food better than from calcium supplements.

## ***Bisphosphonates***

Two bisphosphonates, etidronate and elendronate, are currently licensed for the treatment of sufferers with established osteoporosis. Controlled clinical trials show they may offer long-term prevention of bone loss in

those who suffer from osteoporosis, by trying to prevent the natural turnover of bone.

However, they are poorly absorbed and must not be taken at the same time as any other medication or calcium supplement. Some women may find them difficult or inconvenient to take. Reported side-effects include nausea, abdominal discomfort and skin rashes.

### **Etidronate (Didronel)**

May be prescribed by a doctor, and is taken on a 90 day cycle. 400 mg etidronate disodium daily for 14 days, followed by 500 mg calcium supplement for the next 76 days. The cycle is repeated and continued for a recommended three years. It is taken with water or fruit juice, on an empty stomach two hours before food.

### **Alendronate (fosamax)**

It is stronger than etidronate, and also needs to be prescribed. Dosage is 10 mg daily, on a continuous basis. It needs to be taken with a full glass of water 30 minutes before breakfast, and you need to remain upright for 30 minutes after taking each dose. Research has shown an increase in average bone mineral density with its use.

### **Raloxifene (selective oestrogen receptor modulator)**

These are widely known as "SERMS", and are the latest non-hormonal treatment to prevent bone loss. Early research indicates that raloxifene may protect against cardiovascular disease and osteoporosis, with no known risk of causing cancer of the womb or breast. Raloxifene (one of the first "SERMS") is now licensed for the prevention of osteoporosis in the UK. However, all the present SERMS can cause hot flushes and sweats and there is no evidence that they will alleviate the other physical or psychological symptoms that women may experience due to a premature menopause.

## ***Useful addresses***

### **The Amarant Trust**

Head Office and Clinic, 80 Lambeth Road,  
LONDON SE1 7PW

Telephone: office 0171 401 3855

Helpline 01293 413000

### **The National Osteoporosis Society**

PO Box 10, Radstock, Bath, AVON BA3 3YB

Telephone: office 01761 471771

Helpline 01761 472721

### **The Women's Nutritional Advisory Service**

PO Box 268, Lewes, East Sussex BN7 2QN

Telephone: 01273 487366

## ***Suggested reading***

### **The Natural Menopause**

Dr Mirian Stoppard. Dorling Kindersley. Cost £4.99

### **Is HRT Right for You?**

Dr Anne MacGregor. Sheldon Press. Cost £9.99

### **Understanding the Menopause**

Dr Anne MacGregor. BMA. Cost £2.99

### **Understanding HRT and the Menopause**

Dr Robert CD Wilson, Which? Consumer Guide. Cost £6.99

### **Healthy Eating – A Guide for Cancer Patients**

Hochland Communications Ltd, 0161 929 0190

### **Overcoming Eating Difficulties**

Hochland Communications Ltd, 0161 929 0190

### **The Menopause, HRT and You**

Caroline Hawkrigde. £7.99