Information for women

# Hormone Replacement Therapy (HRT) – types, doses and regimens

**Many types of HRT are available and there is not one type, dose or regimen which suits all women. It is important to understand which hormones are used, why and how so that for each woman who chooses to take HRT, the treatment is individualised to best suit her needs, taking into account types of symptoms, medical history, period pattern if present and current national recommendations and guidelines.**

## Types and regimens

The main part of HRT is estrogen since the menopausal symptoms and later consequences are due to low estrogen; HRT aims to replace estrogen. All preparations contain estrogen every day which can be taken by a daily tablet, a twice weekly or weekly patch, a daily gel or a daily spray. Very often a daily tablet is tried first, but the route is decided by individual preference and past medical and family history. For example, if you have risk factors for deep vein thrombosis (DVT) such as being overweight or past history of DVT, then patch, gel or spray (transdermal) would be recommended since transdermal estrogen does not affect your risk of DVT whereas the risk can be increased with tablet form. Tablet estrogen is absorbed by the bowel and is then broken down by the liver before it reaches the blood stream and can then have any action. Transdermal estrogen replaces estrogen in a way which more closely represents the way which our ovaries produce estrogen, where it is picked up directly by blood vessels and then circulates around the body. However, many of the benefits of HRT shown in trials, have used tablet HRT and many women find that a daily tablet is convenient and suits them well.

If estrogen alone was given, it could stimulate the womb lining and eventually cause it to be unhealthy and increase the risk of womb cancer. To prevent this progesterone or progestogen is taken in addition, unless the womb has been removed when usually estrogen alone can be taken.

Micronised progesterone closely resembles the progesterone produced from our ovaries in the second half of a natural cycle, while progestogens are man-made. Progesterone may be associated with less risk, such as effect on the blood clotting system and diagnosis of breast cancer, but the evidence, particularly regarding breast cancer risk, is not strong and many women gain many benefits with little risk from regimens using progestogens.

If you are still having periods, (perimenopausal) then progestin is taken for part of each month's pack and this cyclical progestogen leads to a withdrawl bleed in most women taking this type of cyclical, or sequential HRT. Sequential HRT is available in combined tablets which provide estrogen alone for the first 14 to 16 days, followed by estrogen plus progestogen for the remaining 14 to 12 days. Sequential HRT is also available in the form of a combined patch. At times, it may be necessary to separate the estrogen and progestin. An example may be an estrogen patch, gel or spray, with micronized progesterone, the progesterone being taken for 12 to 14 days per 28 day cycle, in a dose of 200mg daily at bedtime. This is a more complicated regimen, but may be required for some women.

If your periods have stopped (postmenopausal) continuous combined HRT can be taken which contains estrogen and progestogen every day and the daily progestogen provides protection of the womb lining without causing a monthly bleed, although some bleeding in the first few months is quite common. We know that periods have stopped and that you are postmenopausal by having had at least a year without periods, or by being aged 54 and over, by which time 80% of women have stopped having periods.

Continuous combined HRT is available in the form of a daily tablet or a patch. The gel and spray only provide estrogen so if either of these are chosen, a daily separate progestin is needed. An example of a continuous combined regimen using micronized progesterone would be Utrogestan 100mg daily at bedtime along with separate estrogen.

### Intrauterine progestogen

An intrauterine system, Mirena, releases progestogen directly into the womb and provides excellent protection of the womb lining and bleeding control. It can be used for the progestogen part of HRT for 5 years, and can be used even if contraception is not needed. It allows great flexibility of dose of estrogen since it protects the womb lining with any dose of estrogen.

### Doses of estrogen

Regarding dose of estrogen, we recommend starting with a low dose, since symptoms often respond well to a low dose and there is no need to take more than required. Starting with a higher dose is more likely to cause side effects.

Sequential preparations in tablet form are available in low or medium doses of estrogen with appropriate progestogen. Sequential transdermal HRT is only available in a medium dose of estrogen and appropriate progestogen.

Tablet form continuous combined preparations are available in a range of doses of estrogen; ultra low, low, medium and high, all with appropriate progestogen included.

Continuous combined patches provide a medium dose of estrogen and appropriate progestogen. To provide a low dose of transdermal estrogen as recommended to start with, using a low dose patch gel or spray, a separate progestogen, eg Utrogestan 100mg taken daily at bedtime can be used.

Current recommendations advise that the lowest effective dose of estrogen be used, which applies to all therapy areas. For some women, the dose of estrogen may need to be increased to adequately control symptoms, and a gradual increase (no sooner than 3 monthly) is in line with recommendations; the lowest effect dose for one woman will be very different from what is the effective, appropriate dose for another. Any need for a change in dose is assessed by presence or not of menopausal symptoms and side effects. Blood tests to measure hormone levels are rarely needed nor helpful.

While dose adjustment may be needed, it is also important to address any other factors which may be contributing to symptoms such as diet and lifestyle, rather than solely increase the dose of estrogen.

In situations when a higher estrogen dose is needed and progesterone is taken separately, great care must be taken to ensure that the progesterone is adequate for protection of the womb lining. It should be noted that no data is available for the effect on the womb lining of varying doses of transdermal estrogen and Utrogestan.

This fact sheet has been prepared by Women's Health Concern and reviewed by the medical advisory council of the British Menopause Society. It is for your information and advice and should be used in consultation with your own medical practitioner.

| Estradiol-approximate equivalent doses | | | | |
|---|---|---|---|---|
| | Ultra low | Low | Medium | High |
| Oral | 0.5mg | 1.0mg | 2.0mg | 3.0mg |
| Patch | Half 25 | 25 | 50 | 75-100 |
| Gel-pump | ½ pump | 1 pump | 2 pumps | 3-4 pumps |
| Gel-Sachet | ½ x 0.5mg sachet-0.25mg | 0.5mg | 1mg | 1.5 – 2mg |
| Spray | 1 spray | 2 sprays | 3 sprays | — |

It should be noted that response to any preparation is unique to each woman, some women responding well to a low dose of one preparation while not responding well to a high dose of another.

You can see different types of HRT at **www.menopausematters.co.uk/tree.php**

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