# Menopausal symptoms:
## Time of change - Beginning of a new phase of life: With medicinal mushrooms easier through menopause!

By Sabine Springer

The menopause (climacterium) is a period where the female body switches from its fertile into its infertile phase. This is always a big turning point in women lives but this is also always the chance for a new beginning.

The menopause last differently long for each woman, it can extend over a period of about ten years, mostly between the age of 45 and 60.

This stage of life is associated with philosophical reflections about the second half of life and is often accompanied by fears such as being afraid of loss of attractiveness, getting old and sick. Not only to relieve discomfort, but also to continue to meet the beauty standards of our youth oriented society, many women are still willing to use hormone replacement therapy, although they know about the associated risks.

### Critical voices about hormone replacement therapy

However, the classical medicine also doubts the benefits of hormone replacement. Indisputably, there is a link between estrogen intake and breast cancer, as estrogen stimulates the growth of tissue, such as the estrogen sensitive breast and uterus cells. Also, studies have shown that the degradation products of synthetic estrogens can cause DNA damage that can be carcinogenic in tissue. It is therefore necessary to think about the risks and benefits of hormone replacement therapy. Non-hormonal therapies are increasingly used as an alternative treatment of menopausal symptoms.

### Time of change: The "climacteric syndrome"

With the onset of menopause, the ovaries produce less and less sexual hormones. While turning around the hormonal balance many women feel discomfort symptoms that differ quite strongly from women to women. Estrogen acts in the brain on the control of the body temperature, it can cause fluctuations in hormone levels, can cause hot flashes and sweating. Both symptoms are among the most common complaints of women during menopause.
Furthermore, sleep disorders, depression, dry mucous membranes, and thus problems during sexual intercourse may also occur. According to studies, about two-thirds of all women suffer from moderate to severe menopausal symptoms; only one third does not feel affected physically. However, the associated menopausal physical and mental disturbances do not necessarily lead to discomfort. The switch into this new phase of life can be supported with funds from nature, for example by using phytoestrogens or herbal products, such as ‘Cimicifuga’ or certain medicinal mushrooms that contain specific ingredients which can help women to bring body and soul back into balance.

## Hormonal break

The endocrine system is a highly sensitive, sophisticated communication system of the body. Hormones affect our mood, menstrual cycles, pregnancy, during the time after childbirth and menopause and it can cause depression, because the brain and the reproductive organs are closely connected to each other through a complex series of feedback mechanisms. There is a complex interaction between the hypothalamus, pituitary, ovaries and many hormones. Menopausal symptoms are strongly dependent on the balance of the sexual hormones GnRH, FSH, estrogen, progesterone and testosterone. The production of these hormones decreases during menopause, unfortunately, not linear, but intermittently or irregularly. Too high hormone levels might cause the same symptoms as too low levels.

## Natural estrogens

The estrogen levels in the blood vary enormously during the course of a cycle. Estrogens play an important role, especially in the first half of the menstrual cycle. The estradiol-17-beta belongs to the family of natural estrogens, the most potent natural estrogen in women. It is formed almost exclusively in special cells of the mature follicle in the ovary and it is important for the growth of bones. But it is also particularly important for the development of female sexual characteristics as well as the monthly growth of the uterine lining during the first half of the cycle. The estriol is formed especially in pregnancy and is less effective. Furthermore, the estrone also belongs to the class of natural estrogens. It plays a minor role before menopause, but it gains importance after menopause, when the ovaries produce almost no estradiol anymore.

## The role of estrogen before and after menopause

The essential task of estradiol is to stimulate the growth of breasts and uterus to participate in the maturation of the follicle and to prepare the birth of a child at the end of the pregnancy. Most likely it is also to protect the heart and brain functions, and to maintain bone strength.

When the ovaries slow down their function, the androgens that are produced in the adrenal glands will be increasingly converted into estrogens. Furthermore, the body helps itself by producing an increasing amount of estrogens. Now other body tissues, especially the visceral fat around the stomach and hips, thus ensure a residual estrogen level. Particularly in overweight women relatively high amounts of estrogens can be found in the blood after menopause. After the end of the fertile period of life the estrone becomes the predominant estrogen. After menopause it is produced in high amounts from DHEA – the precursor of androgens - in the adrenal cortex, but also in adipose tissue. It is generally said that estrogens have general health protective effects. When the estrogen levels decrease with onset of menopause, the estrogen that is stored in the subcutaneous fat will be released into the bloodstream. The skin becomes more wrinkled, the risk for cardiovascular disease, atherosclerosis, heart attack and osteoporosis increases. However, the body also produces continuously a small amount of estrogen after the menopause in fact in the fat cells, the adrenal glands, the muscles, in the liver and brain.

## Testosterone (androgens)

In the female organism androgens are normally found in much higher concentrations than the estrogens. There are four androgens, which are present in different concentrations: testosterone, androstenedione, androsterone and dehydroepiandrosterone (DHEA).
Women produce androgens in the ovaries and the adrenal cortex. The main role of androgens is to increase sexual energy. In addition, they support the formation of connective tissue as well as bone and muscle mass and they also influence the formation of red blood cells.
Although testosterone levels decrease during menopause in most women, it can also rise in some cases. A lack of estrogen in the post menopause can also lead to a relative excess of male sex hormones. This can cause increased body hair growth (facial hair, hair on the chest).

## Progesterone

Generally, many typical menopausal symptoms are said to be caused by declining estrogen levels. However; the attention must be also paid to another female hormone, which is often ignored: the progesterone. Its decline is in most cases the first hormonal change, which initiates the menopause and that is long before changes in estrogen and the testosterone levels happen. Progesterone, also called the corpus luteum hormone, is mainly produced in the ovaries, but also in the brain and in the peripheral nerves. It is mainly formed in the second phase of the menstrual cycle by the corpus luteum and later by the placenta during pregnancy. Small amounts of progesterone are also synthesized by the adrenal cortex. Progesterone is not to the same as progestin, because progestin does not occur naturally in nature, but is produced synthetically to prevent pregnancies. As less and less ovulations happen in the menopause, also less and less progesterone is produced.

## Stress and imbalance

Many women in our culture are constantly exposed to high requirements and chronic stress. In menopausal women who have been severely affected by the hormonal fluctuations anyway, this constant over-stimulation can also lead to a reduced production of progesterone, which acts as a natural sedative on the body. Also, a sudden drop in testosterone levels is possibly caused by permanent stress because the adrenals are overloaded. The result is a decreased libido, irritability and general malaise.

## Brain metabolism in mature women

In the course of menopause the female GnRH concentration (gonadotropin releasing hormone) increases in the brain and thus also the FSH and LH levels increase. These two hormones are released by the pituitary gland and they control the function of the ovaries, this means the hormone production (Estrogen, progesterone) and menstrual cycle with ovulation. As popular explanation it is assumed that the body is trying to increase the activity of the ovaries to ensure fertility. However, an argument against this theory is the fact that the FSH and LH levels remain permanently increased. It is therefore assumed that the female brain undergoes also changes in the middle age. This process enables the woman to develop and realize her wishes, regardless of consideration for starting a family. Last but not least the relationship- and caring-hormone oxytocin decreases in middle aged women, they have a better access to their own emotions, instead of always take only consideration

for the family. Unusual belligerence during menopause can also be explained by relatively increased testosterone levels. In addition, the female body produces less of the "happiness hormone" serotonin due to declining estrogen levels. Thus, the stress sensitivity of the brain is increased further. The affected women are easily irritable and prone to mood swings that can range up to depression. It is not surprising that in this stage of life most occupational changes and divorces happen.

## The menopause from the perspective of Traditional Chinese Medicine (TCM)

The major energy disorders in the menopause affect the liver, spleen and kidneys. From the perspective of TCM, the life energy is located in the kidneys that determine growth, reproduction and development. After some time, the kidney yin of mature women declines. This is a natural process that can lead to diseases through constant overload, time pressure and stress.
In addition, the roles of Chong (Meridian, that influences the uterus and regulates menstruation) and the Ren Mai (meridian, which affects the menstrual and fertility and regulates) are also decreasing. Both have a close relationship to the Chinese functional circuit of the kidney. During the transition of the woman this can lead to a yin-yang imbalance in the kidney, since they cannot sufficiently control the element of fire. Thus many complaints result in menopause, for example, the hot flashes. How a woman responds to the hormonal changes of menopause depends largely on her individual constitution and personality.

Naturopathy offers very good alternatives to support the natural changes in women positively for example by using medicinal mushrooms. In many cases, menopause symptoms can already be significantly alleviated by an altered lifestyle and by using natural remedies. The advantage of these natural remedies is that they not only work only in one direction. It was observed that, for example, plants containing estrogen-like ingredients at the same time stimulate the progesterone receptors. So these remedies activate mechanisms that the body also uses itself. The enzyme which stimulates the antagonist is simultaneously transported together with a transmitter substance. The balance is thus secured. The same principle is also found in medicinal mushrooms, because they act adaptive, which means regulating.
The prerequisite is that the fungal powder is made from the whole mushroom. With extracts and mushroom powder only from the mycelium there is a risk to act only on one side and into one direction only. It is additionally important to eat foods rich in healthy nutrients, to enable the body to optimize hormone production.

## Cordyceps sinensis

The menopause often goes hand in hand with interplay of nervous over-excitation and depressive moods. The low estrogen levels also lead to a decline of these neurotransmitters, which are neded to provide a good mood. Studies have shown that on one hand the administration of Cordyceps stimulates the release of 17β-estradiol and decreased the symptoms which are associated with low estrogen levels. Secondly, Cordceps also inhibits the enzyme monoamine oxidase (MAO), which degrades the “feel-good hormone” serotonin, among other things. Thus, Cordyceps promotes emotional balance and reduces depressive moods. It has calming, relaxing and regulating effects and stimulates the function of the adrenal gland. Cordyceps also a specific effect organ effects on the abdominal region and strengthens the kidney energy. Therefore, this medicinal mushroom is also

used to support the "fire of life", which is important for women that are more prone to cold and sexual aversion.

## Reishi

This medicinal mushroom is also called "mushroom of eternal life" in Asian medicine. It helps in vegetative dysregulation such as hot flashes, inner restlessness and insomnia. Even in cases of lack of strength and energy, he is an excellent support. In ancient China Reishi was used traditionally in humans with increasing age or suffering from forgetfulness and weak nerves.
During menopause, the body must adjust its metabolism. Since the liver is involved in these metabolic changes, this process can be supported by the administration of Reishi. More generally, Reishi strengthens the liver, promotes detoxification processes and directs heat out of the body. In this phase this metabolic conversion of the organism the body gains new energy and the woman feels more energetic and powerful.

## Polyporus

Polyporus act as a natural diuretic on edema that are caused by a hormonal imbalance. In addition, the Polyporus is used in alternative medicine and in skin diseases, where the cause is due to overload of the lymphatic system. It is used also in acne and blemishes that are caused by excess testosterone.

## Auricularia

Through the decrease of estrogen levels, the mucous membranes in the vaginal region - but also in the urethra and the bladder – can become noticeably drier and more sensitive. Auricularia is used in TCM traditionally against skin dryness and helps to moisturize the mucous membranes again. In addition, it also relieves heavy sweating.

## Maitake

This medicinal mushroom can be used in the climacteric phase as well to prevent osteoporosis. Before menopause, the sexual hormone estrogen counteracts bone loss, which is increasing during and after the menopause by decreasing estrogen levels. Also, an age-related decrease in the activity of bone-building cells (osteoblasts) leads to a reduction in bone density. Supplementation of this therapeutic fungus the risk of brittle bones can be limited because it stimulates osteoblasts, thus reducing bone resorption. It also decreases fat accumulation. The total cholesterol and triglyceride levels are also lowered already after about two to three months of supplementation which is useful to prevent diabetes, cardiovascular diseases, and of course the dreaded gaining of weight.

## In addition, supplementation with Hericium is helpful

Due to hormonal fluctuations, women are suffering during menopause because of increased stress. This can have a negative impact on the gastrointestinal tract. Due to its protective effect on mucous and its mucous regenerating effect here supplementation of the Hericium is proven to be very successful. Hericium protects but also strengthens the nervous system. Therefore, stress-related fears, anxiety, memory loss and insomnia can be treated well with this medicinal mushroom.

## Conclusion

The menopause is not a disease but a natural phase in every woman's life! Medicinal mushrooms can affect the body's own regulatory mechanisms in a safe and cheap way and help the body to get back into its equilibrium. The mycotherapeutic treatment of low to moderate menopausal symptoms can lead to a relief or even to freedom from symptoms.

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