



Pregnenolone - For improved memory and mental energy!

Fact Sheet for Health Professionals (rev. 2019-10)

COMPOSITION Pregnenolone 10, 25 and 50 mg

DOSAGE FORM Capsules in tamper proof blister packs of 30 capsules packed 120 capsules in a box.

INDICATIONS Clinical research has shown Pregnenolone to be important for nerve and brain health, having also been found to be a potent memory and learning skill enhancer - maybe the most important so far discovered. It is also known to relieve arthritis. Pregnenolone has been used in treating depression, relieving stress, improving mood and sense of well-being. Additionally, it stimulates clear thinking, improves concentration, enhances alertness and promotes an overall better mental function, it all supporting **improved creativity**, making you **think clearer and faster**, keeping the brain functions at peak capacity, increasing the desire to learn and try new things.

> Pregnenolone also possibly influences the (psychic) energy levels. In studies Pregnenolone has been found to have a positive effect on Alzheimer's, Multiple Sclerosis, Parkinson's, seizures, Chronic Fatigue Syndrome (CFS), Diabetes as well as on Autoimmune disorders, such as Lupus and Scleroderma, Heart Disease, Muscle Building, the Immune System, Cholesterol levels, vision and hearing, PMS, Benign Prostate Hyperplasia, skin quality and weight loss. Pregnenolone has also been tested with promising results in spinal cord and nerve injuries, due to accidents or disease. It is only fair to assume, that shortly Pregnenolone will prove to be instrumental in the Aging Process and Longevity and play a very important role in over-all Quality of Life.

> In the body Pregnenolone synthesizes into **Progesterone**, and via DHEA (Dehydroepiandrosterone) into Testosterone and Estrogen. Further human studies are required in order to know the exact and the extent of these effects on human beings.

DIRECTIONS FOR USE Unless otherwise prescribed by a physician, **only individuals over the age of 40 should be taking this** product, as the levels of Pregnenolone prior to that age are usually sufficient. Individuals taking multiple prescription medication or suffering from serious and chronic disease states are advised to consult a physician before using this product.

> Blood levels of Pregnenolone should be measured regularly - especially in younger subjects - to determine if supplementation is appropriate and a physician should monitor the dosages. Although no research indicates any danger for pregnant and lactating women to use Pregnenolone during such times, the advice is not to take this product, until further studies guarantee its safety. Children, teenagers and young adults, should not be taking Pregnenolone without a physician's consent.

TOXICITY

No toxicity has been seen even in dosages several times greater than the generally recommended dose, given over long periods of time. Formal controlled, double-blind clinical human studies are underway, but have not yet been published. Pregnenolone seems to be compatible with - and causes no negative (drug-) reactions whatsoever - all and any prescription drug, other dietary supplements, natural products and foods, when taken in recommended dosage.

SIDE EFFECTS High dosages of Pregnenolone may cause some side effects, e.g. irritability, mood changes, over-stimulation, insomnia, and fatigue. All of these very weak side effects are reversible with decreased intake. Fertility in women may be inhibited because of the androgenic metabolites of Pregnenolone, via DHEA conversion and onwards (See "MODE OF ACTION" below).



SAFETY All-natural, as hormones are, including Pregnenolone, they should be treated with respect, as all prescription/OTC/natural medicines, dietary supplements, foodstuffs/ nutrients, much the same way we treat e.g. alcohol with respect. There is always an appropriate and correct level to be searched out/ established and achieved. Too much and too little spoil everything! However, we know for sure, that with age, the natural secretion of related hormones, enzymes and other important bodily substances, drastically goes down - substances that are vital in order to have a functioning body and mind - as well as all other bodily functions do. One may ask: "What is the chicken and what is the egg, in this case?"

First, one has to establish in appropriate clinical studies, that the substance in question is safe and effective to use in recommended dosages. Secondly, that it is produced according to "GMP", Good Manufacturing Processes (= adheres to pharmaceutical standards) (see page 4 of this Fact Sheet: "Production/GMP"). Even at dosages 25 times (in humans, in fact in rodents over 7000 times!) larger than the generally recommended dosage, for over 6 months, no toxicity or side effects were noted.

RECOMMENDED

Take 10-50 mg daily or according to doctor's prescription. Take capsule in the morning. For healthy indi-**DOSAGE** viduals, to compensate for the body's increasingly declining own production, 10 mg is recommended for people over 40 years of age, 25 mg for people over 50 years of age and 50 mg for people over 60 years of age, as general guidelines. For therapeutic and/or continuous use, or usage in younger subjects, a physician should be consulted, to establish the correct daily dosage and blood levels of Pregnenolone should be measured regularly, to achieve optimum hormone levels.

MODE OF ACTION

Pregnenolone is a natural hormone, produced primarily by the adrenal glands, but also in the brain, liver, skin, testicles and ovaries. It circulates in the body mostly in its water-soluble form, call Pregnenolone-sulfate, or "Preg-S". The chemical name is: 3-alpha-hydroxy-5-betapregnen-20-one. In the body, Pregnenolone is used as Pregnenolone itself, or it is converted to DHEA (dehydroepiandrosterone), which in turn is converted into Androgens (e.g. Testosterone), Estrogens and to other steroids, and through another pathway it is metabolized to Progesterone. Totally over one hundred and fifty different steroid hormones are made from Pregnenolone in the body - it generates a whole symphony of hormones - in short: "The symphony of life".

If DHEA is referred to as "The Mother Hormone", Pregnenolone will qualify to be called "The Grandmother Hormone". Pregnenolone was first prepared in a laboratory in 1934. Many human studies show that Pregnenolone could fight fatigue, relieve arthritis pains, improve well-being, mode and memory as well as fight stress. Being a natural substance Pregnenolone cannot be patented, and therefore the drug companies have no interest in it, as they cannot make their regular 95%+ profit margin from it, and also as they cannot then fully control it themselves. They preferred to put their research money in cortisone instead in the 1940's and 50's.

Everyone knows the limitations and serious side-effects of this compound - the rest is history! Needless to say the pharmaceutical industry sees this as a threat, and is running active, vicious and extensive - and costly - discrediting campaigns, including spreading incorrect, even falsified, information on the "danger"/ safety using products like Pregnenolone. The same is true for substances like Melatonin, DHEA (dehydroepiandrosterone), Progesterone, Human Growth Hormone etc., etc.

It is interesting to note that there is a **clear difference in the metabolism of Pregnenolone in human** males and females - in males the metabolic pathway seems to favor conversion into Testosterone and in females the conversion into Estrogens.

COMBINATION WITH OTHER HORMONES/ "HORMONECOCKTAILS"

Although Pregnenolone is a precursor to Progesterone and DHEA, which in turn is a precursor to several other hormones, e.g. all of our sex hormones (Testosterone, Estrogen, only to name a few), it is important to understand, that the conversion rate of Pregnenolone to these hormones is slowed down even more with age, than the actual production in the body of the hormones themselves. Hypothetically, in young adults, who normally have adequate hormone levels anyway, the metabolic pathways functions like a German Autobahn! Pregnenolone is converted to DHEA and all other "downstream" hormones, at the metabolic correct (and at that age, high) speed - there is no shortage of raw material/fuel (Pregnenolone), and there is no shortage of the conversion-enzymes. Supplemental hormones at such age, specifically Pregnenolone, just further increase the speed - and the total amount - of the conversion to DHEA, and then onwards, with an apparent risk of "overdoing" it.



When we age, the enzymes secreted by the body governing the conversion of Pregnenolone to DHEA, is secreted at an even slower rate, than the applicable hormone secretions themselves. Therefore a "Hormone Cocktail"/a mix of these hormones are preferable, as we age. As no way yet has been found to increase/ maintain the secretion of these enzymes - or to supplement them - both Pregnenolone (mainly for "its own" function as Pregnenolone – memory/mental alertness, mood/well being, arthritis and for nerve/spine cell stimulation/regeneration) and DHEA (for its many well known important and beneficial physiological functions (see "Fact Sheet for Health Professionals, DHEA" from EUROHEALTH) can - and in most cases should - be taken together in recommended dosages. As it has to be assumed, that a certain portion of the Pregnenolone is converted to DHEA, the dosage can be lowered somewhat, but it is very difficult to give any general recommendations in this regard. Certain researchers take a somewhat different attitude, and claim that the two hormones are at large complementary, and especially at somewhat higher ages, should be taken at dosages recommended for each product individually.

Pregnenolone – alone or together with DHEA – can also very favorably, for General Well-being and Good Health and as an Anti-Aging preparation, be combined with Melatonin (see "Fact Sheet for Health Professionals, MELATONIN", from EUROHEALTH®) to activate complementary and synergetic hormonal reactions, governing these important bodily functions.

BRAIN

Pregnenolone-levels are many times higher in the human brain than they are in the blood stream. It is therefore only fair to assume that Pregnenolone plays a significant role in brain health. Steroids made in the brain are called **neurosteroids**. As we grow older the number of brain cells decrease. Also secretion of hormones, e.g. Pregnenolone, decline rapidly with age. Although this is to be expected does it also have to be fully accepted?! Can the process be halted, and maybe even reversed?! It is very likely that Pregnenolone interacts with many receptors in the brain, e.g. "GABA" - gamma amino butyric acid, and "NMDA" (N-methyl-Daspartate), the latter playing an important role in regulating the function and form of synapses on our neurons, thus influencing learning and memory. Aging is thought to be associated with a decline in the number of NMDA receptors, which may partly account for loss of learning ability and memory in old age. Pregnenolone also has a profound influence on acetyl choline, a brain chemical intimately involved in memory.

Because of Pregnenolone's proven biochemical effects on the brain and the brain chemistry, it is only a fair hypothesis to make, that it could be one solution to treating diseases like: Anxiety, Obsessive-Compulsive Disorder (OBD), Dementia, Depression, Manic-depression, Alzheimer's, Parkinson's and aging in general: memory, mood, well-being, peacefulness, mild euphoria, clear thinking, creativity, mental alertness, (psychic) energy, creativity, speech and vision. In 1996, doctors Melchoir and Ritzmann gave Pregnenolone to "alcoholic mice", the conclusion being that Pregnenolone could be beneficial for those who have memory impairment due to alcohol or drug use or overuse.

STRESS Stress – no matter the cause - causes elevated cortisol levels, with increased blood sugar levels, inhibition of the immune system, calcium loss (leading to osteoporosis) as a result. Pregnenolone, especially in combination with Melatonin, has proven to be very effective in relieving stress and stress symptoms.

ENERGY Pregnenolone has Anti-fatigue effects, both physiologically ("more Pep"), as well as psychically - more mental energy.

VISION & HEARING There are proofs that Pregnenolone provides enhanced visual and auditory perception. Colors are brighter and clearer, with greater contrast; shapes are more defined, nature is more beautiful.

HORMONEREPLACE-MENT THERAPY

ESTROGEN/ Can Pregnenolone be a replacement for traditional ERT/HRT? Research indicates that this may be the case, especially together with DHEA (dehydroepiandrosterone), and complemented with human female hormones, e.g. Human Estrogens, like Estriol, Estrone and Estradiol, in the ratio they exist in the human ("ERT/HRT") female body, rather than with horse urine hormones (e.g. "Premarin®"), which has a completely different hormonal ratio than the human mixture (as well as containing hormones, completely foreign to the human species!). Millions of menopausal women are given ERT/HRT for treating typical "Change-of-Life"problems.

> Effective as it may be at times (far from always), the price is high! Traditional ERT/HRT is known to cause Cancer, specifically Endometrial Cancer. To counteract this, synthetic Progesterone, known as "Progestins" (usually Provera®), is added to the ERT/HRT-treatment. This may lower the risk for Endometrial Cancer, but gives a 40% higher rate of Breast Cancer! If this is not a "Catch 22"-situation – what is?!



Awaiting better access and availability of the natural human female hormones, which no doubt "on their own" play an instrumental role in aging women's overall health, hundreds of thousands of women have successfully tried Pregnenolone and DHEA in combination, often complemented with other natural products, e.g. Melatonin. The body itself then manufactures "The Symphony of Hormones", in the needed/appropriate amounts, including Estrogens and Testosterone.

As DHEA also has a positive effect on bone mass and density, and a blood-thinning effect, it may take care of the original "Change-of-Life"-symptoms, Osteoporosis, Heart Disease/Stroke, as well as the hot flashes, directly. The trick is to find the individual right combination of the supplemental hormones (Pregnenolone, DHEA, Melatonin etc.) and the replacement hormones (e.g. Estrone, Estriol, Estradiol) and the ratio of the two types. More research is no doubt needed, but we have after all come a long way and the general information given in the literature, presented in this Fact Sheet, must for now be considered as "safe and efficacious".

ARTHRITIS & AUTOIMMUNE

Treatment with Pregnenolone has shown marked clinical improvement in patients with Ankylosing Spondylitis (AS) (a chronic inflammatory disease of the joints in the spine leading to back pain or stif-DISORDERS fening), Lupus (Systemic Lupus Erythematosus ("SLE"), an auto-immune conditions with swollen joints, skin rashes, mouth ulcers), Osteo- and Rheumatoid Arthritis, as well as Scleroderma (hardening and rigidity of the skin and some internal organs). Considering Pregnenolone's extraordinarily low order of toxicity and side effects, treatment with Pregnenolone should be considered as "the first line defense", according to many physicians!

NEUROLOGICAL HELP

Pregnenolone has also been used in treating Alzheimer's Disease (AD) (Pregnenolone acts on the glutamate receptors and on the Cholinergic system), Multiple Sclerosis (MS) (the sheath (myelin) surrounding the nerves breaks down), nerve injuries (due to accidents, burns, electric shock), Parkinson's Disease (PD) and seizures (stimulates the NMDA-receptors and "moderates" the GABA-receptors).

DEPRESSION

Severe cases of "low mood" are called depression. Ten percent of the population suffer from **dysthymia**, a milder form of depression, with signs of helplessness, fatigue, low self-esteem, over- or under-eating, sleep irregularities and poor motivation. Depressed people also have lower levels of Pregnenolone in the Cerebrospinal fluid ("CSF"), than do healthy individuals. Pregnenolone has been successfully used in counteracting all types of depression.

OTHER INDICATIONS Pregnenolone has been used in the treatment of Chronic Fatigue Syndrome/ "CFS", Addison Disease (destruction of the adrenal cortex causing deficiencies in several crucial adrenal hormones), high cholesterol levels (traditional treatment inhibits the formation of the enzyme HMGCoA-reductase, which is involved in making cholesterol in the body, but also inhibits Pregnenolone levels), Immune System Deficiencies (most likely through it's conversion to DHEA), and skin conditions (in creams it may reverse wrinkling of the skin).

ANTI-AGING/ **GENERAL HEALTH** AND WELL BEING/ QUALITY OF LIFE/ LONGEVITY

Regardless of whether Pregnenolone lengthens the lifespan, it is evident that it does have some important therapeutic application, and used wisely, it may improve the Quality of Life and postpone signs of aging or the aging process itself, while improving general health and sense of well-being. A great deal of research is underway and it will give us answers about the effects and safety of long-term use.

PRODUCTION/"GMP"

Although Pregnenolone is synthetically produced (most often from diosgenin, or other sterols in the wild Mexican yam) supplemental Pregnenolone is identical with the natural body-hormone Pregnenolone. The human body cannot convert these plant substances to Pregnenolone, and any statement to this effect about "natural Pregnenolone" is simply incorrect and not true. Pregnenolone has to be made synthetically to function as the Pregnenolone synthesized by the body itself.

It is very important that the active ingredients and other raw material/components are of the highest pharmaceutical grade/quality available. Also, the production of the finished dosage form should be performed according to approved standards, which adhere to Good Manufacturing Process ("GMP"). This is applicable for all pharmaceutical products, including prescription drugs, as well as Over-The-Counter drugs ("OTC").

Preferably, there should be a **Drug Master File ("DMF")**-number for all active ingredients, as issued by the Food & Drug Administration ("FDA"). The highest quality pharmaceutical grade Pregnenolone is being offered in capsules of 10mg, 25mg and 50mg.

All products are packed in tamper proof blister packs, 30 to each blister, in 120 capsules boxes. Production adheres fully to the principles of **Good Manufacturing Process (GMP)**.



Although this product <u>is not a drug</u> (no medical claims are being made), it is considered to be a Dietary Supplement; no compromises are made on the quality of the ingredients, or on the production of the final dosage form. While the US market does <u>not</u> demand adherence to these strict rules, other markets (e.g. Europe and Asia), <u>only</u> accept production according to these standards, rules and regulations. As a result many products manufactured in the US, or abroad for the US market, <u>do not meet these criteria and standards</u> and must therefore be considered as inferior, even fraudulent.

For your safety and for efficacy reasons, make sure you only buy and use products produced in compliance with "GMP", containing pharmaceutical grade ingredients. Not all products are alike! There are significant differences in the quality of the raw material, in the production process, and thereby in the safety and efficacy of the various Pregnenolone-preparations on the market. "More" or "Cheap" is not always better!

Some countries (with a strong domestic pharmaceutical industry and a strongly regulated system) have elected to restrict the availability of Pregnenolone-based preparations, while the authorities in the United States and other countries positively allow Pregnenolone to be sold unrestricted over the counter as a Dietary Supplement.

STORAGE Store at or below 20° C in sealed containers in a dry place.

DISCLAIMER: The information presented is intended for educational purposes for health professionals and practitioners. It is obtained from published research and books. It is not intended to be prescriptive, nor replace the care of a licensed health professional in the diagnosis and treatment of illness. Rules in regards to acquisition, possession and usage of this product varies from country to country. It is up to the person acquiring/using the product to verify that all applicable criteria are met.

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CONTACTS

EuroHealth Healthy Aging Project LTD Mespil House, Sussex Road, Dublin 4 - Ireland

Fax: +353 1231 4642

email: info@eurohealthproject.com

website: www.eurohealthproject.com

