



Scientific reports :

MEDICINAL & CURATIVE PROPERTIES OF MACA ROOT

This page lists a variety of articles about the medicinal and curative properties of maca root...

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Article #1: (Physician's note) (Source: Dr. Garry P. Gordan, American College for Advancement in Medicine.)

Maca as an Anti-Aging Herb for both men and women

Garry P. Gordon, MD, former president of the American College for Advancement in Medicine, now Founder and President of the International College of advanced Longevity Medicine, located in Chicago, Illinois, bases his appreciation of maca on his own experience with it. Speaking with me from Payson, Arizona, Dr. Gordon said, "We all hear rumors about various products like maca. But using this Peruvian root myself, I personally experienced a significant improvement in erectile tissue response. I call it "nature's answer to Viagra". "What I see in maca is a means of normalizing our steroid hormones like testosterone, progesterone, and estrogen. Therefore it has facility to forestall the hormonal changes of aging," Dr. Gordon believes. "It acts on men to restore them to a healthy functional status in which they experience a more active libido. Lots of men and women who previously believed their sexual problems were psychological are now clearly going to look for something physiological to improve quality of life in the area of sexuality," says Dr. Gordon. "Of course, as someone interested in longevity, I'm aware that mortality comes on much sooner for those individuals whose sexual activity is diminished or nonexistent. In other words, I believe that people who engage in sex twice a week or more live longer. I've found sexual activity to be a reliable marker for overall aging."

Article #2: (Physician's Note) (Source: Dr. Gabriel Cousens, MD)

Maca provides an answer to the effects of aging on the endocrine system

American Physician Gabriel Cousens, MD, believes this herb has the potential of a balanced answer to the effects of aging on the endocrine system. Many who have tried phytoestrogens and/or precursor hormones such as DHEA or pregnenolone, or even natural hormone replacement therapy and have been dissatisfied, are getting excellent results from their use of maca root. Gabriel Cousens, MD, practicing internal medicine in Patagonia, Arizona, says, "Whenever possible, I prefer to use maca therapy rather than hormone replacement therapy because HRT actually ages the body diminishing the hormone producing capability of the glands. Maca has proven to be very effective with menopausal patients in eliminating hot flashes and depression and in increasing energy levels. They find the right dosage level, sometimes I have started the patient on maca treatment with a half a teaspoon of powder or three capsules a day. In some cases I have raised the dosage to a teaspoon or six capsules a day for full effectiveness."

Article #3: (Physician's Note and Testimonial) (Source: Dr. Henry Campanile, MD)

Doctor offers Maca as an Adrenal balancing root

Henry Campanile, M.D., offers Adrenal balancing Maca root to his patients. In keeping with its mode of acting through the hypothalamus and pituitary, Maca has a balancing and

nourishing effect on the adrenal glands. Henry Campanile, MD, a 50-year old specialist in internal and family/ complementary medicine practicing in St. Petersburg, Florida, relates: "I happen to have been born with one adrenal gland just like my father. I started taking cortisone in my late twenties to relieve the fatigue which I was already feeling. Knowing the dangers of long term cortisone use, I looked around for an alternative, and this circumstance is what got me interested in complementary medicine. I started using pregnenolone about 10 years ago and it has been fairly satisfactory. But one of my patients told me about Maca, and I started taking it about a month ago. It is phenomenal! I haven't felt this good since I was 20 years old. I have so much energy and look so well, my patients have remarked on it and told me how rested I seem. I've got so much energy now have started an exercise program." After trying it out on himself, Dr. Campanile began using maca with his patients. "My first patient to take the maca capsules was experiencing hot flashes and other menopausal symptoms. She started feeling much better after using this herb for only four days. I'm also employing it with patients who have low adrenal function."

Article #4: (Physician's Note) (Source: Dr. Jorge A Calderon, MD)
Peruvian pioneer prescribes Maca

Another Peruvian pioneer in the therapeutic application of maca integrated into a modern medical practice is Jorge Aguila Calderon, MD. An internist, Dr. Aguila Calderon is former Chief of the Department of Biological Sciences and Dean of the Faculty of Human Medicine at the National University of Federico Villarreal in Lima. Like Dr. Malaspina and others, (See notes on other science pages), he prescribes maca for a wide variety of conditions including osteoporosis and the healing of bone fractures in the very elderly. "Maca has a lot of easily absorbable calcium in it, plus magnesium, and a fair amount of allies which we are finding very useful in treating the decalcification of bones in children and adults." Along with prescribing an excellent diet and certain lifestyle changes, Dr. Aguila Calderon has helped patients with male impotence, male sterility, and female sterility by employing maca therapy. Additional problems he treats with maca are rickets, various forms of anemia, menopausal symptoms such as hot flashes and night sweats, climacteric and erectile difficulties in men, premature aging, and general states of weakness such as chronic fatigue.

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Article #5: (Physician's Note) (Source: Dr. Harold Clark, MD)
Harold Clark, MD, makes Maca a key remedy

Another American doctor who has recently begun to use maca therapeutically for some patients is from New Rochelle, New York. Dr. Clark, who utilizes chelation therapy and ozone therapy in addition to herbs, vitamins and minerals in his practice stated, "I'm amazed at how fast maca worked on two patients that I have been concerned about for some time." He described one patient as 55 year-old Mary T, a postmenopausal, woman. Mary T was possessed of numerous health problems, including somewhat elevated blood sugar, hypertension, atrial fibrillation, and hypomagnesemia. She had been acutely ill for two months with osteomyelitis and generalized sepsis. Unable to work, she was suffering from great fatigue and depression and feeling 'worse and worse' over the last five years. "Within just four days of taking the maca capsules, Mary T went through an enormous turnaround," said Dr. Clark. "She has gone out to shop in the stores; she's cleaning her house; she feels strong and vigorous; and her depression is gone."

HORMONE REPLACEMENT THERAPY PROPERTIES OF MACA ROOT

#1- Article: (Source unknown)

Effects of Peruvian Maca on Hormonal Functions

Whether discussions today are about estrogen replacement therapy, increasing male potency or improving other hormonal functions, the solutions mentioned are generally drugs currently on the market. Lately, however, we've been hearing marvellous reports about a hearty plant root cultivated high in the Andes of Peru. Known as "maca," this ancient nutritional source and efficacious endocrine system remedy is being dispensed by health professionals as a safe and natural substitute for drugs. Maca, in fact, has been used by Peruvian consumers for many centuries, from before the time of the Incas. Once in a decade an herb used by native peoples for thousands of years comes to our attention and it seems so important to health that we wonder how we ever got along without it before. Now women have an alternative to hormone replacement therapy [HRT]. Maca works in an entirely different and more satisfactory way for most women than the phytoestrogenic herbs like black cohosh and licorice root. These herbs have become popular with menopausal women who refuse to take the drugs of HRT. And men, too, find in maca an herb that will counteract the difficulties they may experience in maintaining good sexual relationships as they age, due to a general slowing down in the output of the endocrine glands.

#2- Report: Peruvian Maca Lab Study and Report: (Source: Dr. Gloria Chacon de Popivici, Lima- Peru)

Effects of Maca on the Endocrine Glands

Dr. Gloria Chacon isolated four alkaloids from the maca root and carried out animal studies with male and female rats given either powdered maca root or alkaloids isolated from the roots. In comparison with the animal control groups, those receiving either root powder or alkaloids showed multiple egg follicle maturation in females and, in males, significantly higher sperm production and motility rates than control groups. Dr. Chacon established that it was the alkaloids in the maca root, not its plant hormones, that produced fertility effects on the ovaries and testes of the rats. "These effects are measurable within 72 hours of dosing the animals," she offered in a recent telephone interview from Lima, Peru. Through the experiments, she deduced that the alkaloids were acting on the hypothalamus-pituitary gland, which explains why both male and female rats were afflicted in a gender-appropriate manner. This also explains why the effects in humans are not limited to ovaries and testes, but also act on the adrenals, giving a feeling of greater energy and vitality, and on the pancreas and thyroid as well. Implications of Dr. Chacon's discovery of the pituitary stimulating effects of maca are enormous. What it appears to mean is that hormone replacement therapy, even the natural varieties, will no longer be the gold standard for optimising a holistic point of view.

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#3- Article: (Reprinted from Nature & Health Magazine, December 1999/ January 2000)

Maca: Discover how this new phytonutrient can ease menopausal symptoms

Rather than hormone replacement therapy (HRT), millions of women are putting their faith in a remedy which has been used for 10,000 years, which is safe and amazingly effective: a cruciferous root vegetable from Peru called maca. Anthropologist Dr. Viana Muller has brought this extraordinary remedy to the attention of the Western world. "Once in a decade a remedy used by native peoples for thousands of years comes to our attention and it seems so important to health that we wonder how we ever got along without it," Dr. Muller says. "Maca is that kind of supplement. Now women have an alternative to hormone replacement therapy drugs. Maca works in an entirely different and more satisfactory way for most women than phytoestrogenic herbs like black cohosh and licorice root." And men, too, find that maca can counteract the difficulties they may experience in maintaining good sexual relationships as they age, due to a general slowing down in the output of the endocrine glands." The scientist responsible for much of the current knowledge of the maca root is Dr. Gloria Chacon

de Popivici, a biologist trained at the University of San Marcos, in Lima, Peru. Dr. Chacon says that maca root works in a fundamentally different way than HRT, promoting optimal functioning of the hypothalamus and the pituitary, thereby improving the functioning of all the endocrine glands. Dr. Chacon has done the most important scientific work to date on the maca plant. (See study above). Dr. Muller says, "Implications of Dr Chacon's discovery of the pituitary-stimulating effects of maca are enormous. What it means is that hormone replacement therapy, even the natural varieties, will no longer be the gold standard for optimising health from a holistic point of view." Alternative to HRT: It is important to remember that maca does not itself contain any hormones, but its action on the body jogs the pituitary into producing the precursor hormones which ultimately end up raising oestrogen, progesterone and testosterone levels, as well as helping to balance the adrenal glands, the thyroid and the pancreas. But this occurs naturally, not with time-bomb drugs which throw the entire body into a dangerous state of confusion. Dr Jorge Malaspina, a respected cardiologist, has been using maca in his practice in Lima, Peru, practice for over a decade. He says, "Maca does not cause the ovaries in women to atrophy, as conventional hormone replacement therapy does." This means that maca may be discontinued at any time without danger. He adds, "Different medicinal plants work on the ovaries by stimulating them. With maca, though, we should say that it 'regulates' the ovarian function." Dr Malaspina reiterates what Dr. Chacon says about the way maca regulates the organs of internal secretion, such as the pituitary, the adrenal glands, and the pancreas. He has also found maca to be effective even on women who have undergone complete hysterectomies. He describes one patient who had a serum oestradiol level of 15, which is very low. After two months on maca it went up to 75. He says that a level above 60 is an adequate postmenopausal level. "Maca enables the adrenals to make sufficient hormones to avoid symptoms", he says. Dr. Malaspina adamantly prefers maca therapy to HRT. "The presence of outside hormones circulating in the system sends a message to the pituitary and the hypothalamus that there is a sufficient quantity of hormones in the body, and so they stop producing them. When menopause arrives, then, the ovaries are atrophied and do not produce the oestrogen and progesterone which the body requires minimally to function. For this reason, I encourage women to start with maca before menopause. It seems to help the endocrine system to stay in balance."

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#4- Article: (Source: Dr. Hugo Malaspina, MD and cardiologist- Lima, Peru)

Maca regulates sexual functions for both males and females

Hugo Malaspina, MD, works with Maca now practicing complementary medicine with an emphasis on the use of medicinal herbs. He is one of the earliest modern pioneers in the therapeutic use of this ancient herb for an urban population. A respected cardiologist in Lima, Dr. Malaspina has been using the maca root in his practice for a decade and makes the following observations: "There are different medicinal plants that work on the ovaries by stimulating them. With maca, though, we should say that it 'regulates' the ovarian function." Dr. Malaspina, who uses maca therapy for both his male and female patients, recalls that he first heard about this extraordinary herb through a group of elderly gentlemen who, while well along in years were still lively and interested in enjoying sexual activities. One of this group, (they were all over 70), started taking Maca and found he was able to perform satisfactorily in a sexual relationship with a lady friend. Soon everyone in the group began drinking the powdered maca as a beverage and enjoying the boost that the root was giving their hormonal functions. "I have several of these men as patients, and their improvement prompted me to find out more about maca and begin recommending it to my other patients," Dr. Malaspina stated. What makes maca so effective, according to Dr. Malaspina, is that rather than introducing hormones from outside the body, maca encourages the ovaries and other glands to produce the needed hormones. The cardiologist-turned-wholistic physician said, "Maca regulates the organs of internal secretion, such as the pituitary, the adrenal glands, the pancreas, etc. I have had perhaps 200 female patients whose perimenopausal and postmenopausal symptoms are alleviated by taking maca."

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#5- Article: (Source: Dr. Hugo Malaspina, MD and cardiologist- Lima, Peru)

Maca Provides benefit following hysterectomy

Dr. Malaspina has even found maca to be effective for women with hysterectomies. He discussed a 49-year old woman who had a hysterectomy eight years ago, although she still retained her ovaries. "The woman was beginning to get menopausal symptoms - hot flashes, cold feet, depression, tachycardia, some constipation and some bone loss. Because she had breast implants, usual hormone replacement therapy was not an option for her," explained Dr. Malaspina. "I started her on maca and within three months the depression, constipation, and hot flashes cleared up. Based on my experience with some other patients, I expect that her bone density will improve as well, but that will take longer." He has also dispensed maca to women who have undergone complete hysterectomies. One patient who had her ovaries removed was on HRT. 'But she didn't feel well taking the HRT so she stopped. When I examined her the blood serum estradiol level was 15 which is very low and she was experiencing hot flashes. Two months after she began taking maca I retested her and the woman had a level of 75. Anything above 60 is probably an adequate postmenopausal level. Maca enabled the adrenals to make sufficient hormones to avoid symptoms," he said. Dr. Malaspina adamantly prefers maca therapy to HRT. "Presence of the outside hormone circulating in the system sends a message to the pituitary and the hypothalamus that there is a sufficient quantity of hormones in the body, and so they stop producing them. When menopause arrives, then, the ovaries are atrophied and do not produce the estrogen and progesterone which the body requires minimally to function." For this reason, I encourage women to start with maca before menopause."It seems to help the endocrine system to stay in balance."

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#6- Article: Nurse's notes and testimonial: (Source: Stephanie Sulger-Smith, RN, MS)

Results for a nurse practitioner and her patients

From her White Plains, New York, clinic, nurse-practitioner Stephanie Sulger-Smith, RN, MS, says that she read an article about postmenopausal health which discussed Maca. At her clinic she offers nutritional counselling for a variety of conditions. "I had been prescribing black cohosh, dong quai, oil of evening primrose, vitamin E and other natural remedies to women with perimenopausal symptoms. But when I began using these remedies to help with my own hot flashes and other symptoms of approaching menopause, I didn't get the relief I needed. So I acquired a supply of maca powder and took it as advised. Almost immediately, my hot flashes disappeared and my energy level went up. My response to maca was surprising to my gynecologist, who insisted that I undergo a series of laboratory studies, including estrogen levels, uterine monograms and others. They all turned out normal," says nurse Sulger-Smith. "I haven't had a hot flash since the beginning of November 1997, and I feel fabulous. When I told my patients about Maca, they tried it and found freedom from their perimenopausal and menopausal symptoms." One patient who has been taking maca for over a year had a series of bone density studies done that showed increased density in the spine," says Nurse Sulger-Smith. "Other case histories exhibit similar positive results from taking maca. In fact, most of the women taking the root powder report that they feel less fatigue, greater energy, are less susceptible to stress, and do not experience hot flashes or night sweats. There are always a few individuals who will show an allergic reaction or who fall into a group of women or men for whom a pituitary stimulator such as maca is contraindicated in the absence of studies that prove its safety. These groups include men with a high PSA level or a history of prostate cancer. Men using maca on a regular basis should undergo periodic PSA tests. Women with a history of breast cancer or other types of hormone-related cancer also fall into this group."

WHY DOES MACA INCREASE LIBIDO IN MEN & WOMEN?

Alkaloids were first shown to work on the hypothalamus-pituitary axis by Dr. Gloria Chacon de Popovici in 1962. In her studies she found maca greatly increased fertility in both sexes. The peer reviewed journal "Urology" reported a Chinese University trial which proved an increase of nearly 100% in the sexual frequency of animals that had been fed maca. One study claimed that males had a 180% increase in semen production. In females, Dr. Chacon found that maca increased egg follicle maturation and increased the number of follicles. In males, she noticed increased sperm count as well as increased sperm motility. Thus she deduced that maca wasn't producing hormones in either sex, but rather stimulating each sex to respond in a gender appropriate manner. Since then, several studies have been conducted on men, and conclusions verified the reports. Science is now showing what Peruvians already knew. Glucosinates (found in plants of the Cruciferae family), specifically methoxybenzyl isothiocyanate, are implicated for their action on reproductive hormonal processes while the amino acid L-arginine found in maca is believed to stimulate sexual desire in both sexes and aids erectile tissue response in men. Since the results of the Chinese test studies on maca and sex were published, many men across North America are offering their own testimonials: reporting revived sexual abilities and stamina, making 60 feel like 16 again. Many women, soothed by the calming effect of maca provides, claim that maca can ease hormone irregularities, restore muscle tone, add moisture and give a youthful glow to the skin. Never mind about the sex, that's only a sign of good endocrine health, which rejuvenates us all.

Testimonial from a doctor: "We all hear rumors about various products like maca. But using this Peruvian root myself, I personally experienced a significant improvement in erectile tissue response. I call it "nature's answer to Viagra".

NUTRITIONAL VALUES & CHEMICAL PROPERTIES OF MACA ROOT

This page lists a variety of articles and reports about the nutritional values and chemical properties of maca root... To learn more about other maca science subjects, [click here](#)

#1- Article: (Source: Institute of Nutrition, Lima, Peru- 1979)

The Nutritional Value of Maca Proteins

The Nutritional Value of Maca Proteins, as polypeptides, make up 11% of the dry maca root and 14% of the whole maca paste. Calcium makes up 10% of maca's mineral count. Magnesium and potassium are also present in significant amounts. Other maca minerals include iron, silica, and traces of iodine, manganese zinc, copper, and sodium. Starch, a hexosane polysaccharide in maca, contains the triple minerals calcium, phosphorus, and iron. Vitamins found in maca comprise thiamin, riboflavin and ascorbic acid. Carbohydrates, coming from maca's cellulose and lignin, are polyholosides. Amino acid proteins in maca include aspartic acid, glutamic acid, serine, histidine, glycine, threonine, cystine, alanine, arginine, tyrosine, phenylalanine, valine, methionine, lysine, tryptophan, proline, hoproline, and sarcosine.

#2- Article: (Copyright: Jerome R. Black, 2000)

Nomenclature of Maca: *Lepidium peruvianum* or *Lepidium meyenii*?

Botanically speaking, both *Lepidium peruvianum* and *Lepidium meyenii* are correct and indeed the very same plant. Do not be confused by reports that indicate a difference between

the two. In the field of taxonomy, the genus and species are quite often changed over time or even used interchangeably in various texts. Synonyms from the botanical texts are common and sometimes used by various authors to describe the same plant. Why differences arise between various authors is because authors may publish independently (regional and language differences between countries) while ongoing work is carried out at herbarium around the world. Therefore, the name of the species, peruvianum, is now commonly applied to 'Maca' by almost all contemporary botanist', and is found to be more suitable because the origins of Maca are indicated to be specific to the Peruvian highlands. For the time being both names may be used interchangeably and accurately. Do not be misled by web sites indicating that they sell "The only botanically correct and true Maca species". What you should watch out for are companies who "cut their Maca with rice flour or other excipients!"

#3- Article: (Copyright: Jerome R. Black, 2000)

Maca at a glance. What it is:

Maca is a dehydrated, cruciferous root vegetable, and not a drug, so it is imported without any problems. It is a benign, medicinal food which has been in use for 10,000 years, possibly more, and has had ample time to be judged effective. It is also easily affordable. What's in it: Proteins, as polypeptides, make up 11% of the dry maca root; calcium makes up 10% and magnesium and potassium are present in significant amounts. Other minerals include iron, silica, and traces of iodine, manganese zinc, copper, and sodium. Vitamins in maca are thiamin, riboflavin and ascorbic acid. The amino acid proteins in maca include aspartic acid, glutamic acid, serine, histidine, glycine, threonine, cystine, alanine, arginine, tyrosine, phenylalanine, valine, methionine, lysine, tryptophan, proline, hoproline, and sarcosine.

Benefits: According to doctors in Peru and the US, maca may be of benefit for: Menopausal symptoms: Hot flashes, tender breasts, sleeplessness and emotional upsets, "brain fog", and vaginal dryness. Osteoporosis: Significant bone rebuilding, improvement in bone density. Energy booster: Balances the endocrine system - thyroid, pituitary and adrenal glands. Male impotence, Chronic Fatigue Syndrome, Period problems: Pain, PMS, flooding and/or scant flow.

www.macapunch.ch

d'après www.macaroot.com/