

THE CALCIUM SHELL

WOMEN:

Calcium of 165-209 mg% is a **single** shell pattern.
Calcium of 210-284 is a 2x or **double** shell pattern.
Calcium of 285-349 is a 3x or **triple** shell pattern.
Calcium of 350-424 is a 4x or **quadruple** shell pattern. (Terrified)
Calcium of 425-549 is a 5x or **quintuple** shell pattern.
Calcium of 550-649 is a 6x or **sextuple** shell pattern.
Calcium of 650-740 is a 7x or **septuple** shell pattern

MEN:

Calcium of 155-199 mg% is a 1x or **single** shell pattern.
Calcium of 200-249 mg% is a 2x or **double** shell pattern.
Calcium of 250-309 mg% is a 3x or **triple** shell pattern.
Calcium of 310-339 mg% is a 4x or **quadruple** shell pattern.

The Calcium Shell is characterized by psychological withdrawal, repressed emotions, out of touch with reality, depression, fatigue, lowered awareness, defensiveness, rigidity, loss of sexual desire, apathy, bone spurs, arthritis, general aches and pains, arteriosclerosis, high blood pressure, impaired circulation, impaired movement, muscle cramps, tension, anxiety, irritability, difficulty sleeping, osteoporosis.

Symptoms are partially due to the depressing or inhibiting effect of calcium upon the central nervous system. *Calcium raises the voltage at which nerve cells fire.* This has a deadening, numbing or depressive effect on the central nervous system. Thus it is not surprising that lethargy, depression and psychological withdrawal would occur.

Another cause for the calcium shell in some individuals appears to be as a means of protection. The shell reduces stress by reducing the intensity of the impact of the environment upon a person's nervous system. This is the numbing effect mentioned earlier.

Some individuals apparently need the shell to protect them from real or imagined stressors. The shell may be a remnant of a difficult childhood, for example, when one was not in control of the environment and had to use any defense possible to maintain one's integrity or even one's sanity. In other words, the calcium shell can be seen as a kind of personality posturing that was adaptive at some stage of life and may still be adaptive, especially if the body is weak and not able to cope well with stress. Usually, however, when a patient comes for help, the calcium shell causing other problems, both physical and emotional, so that the patient wants to change the pattern even if it is still adaptive to some degree.

UNABLE TO HANDLE STRESS

Some people are unable to handle stress very well. These individuals may develop a calcium shell to protect them from stressors. In these individuals, the calcium shell is a kind of support or crutch that is needed at this time.

A Tired Body

In some of these cases, the real problem is a tired body. These people often have very low levels of sodium and potassium on their hair tissue analyses. Once their body chemistry improves and their energy increases, the calcium shell usually disappears quickly.

Unable To Respond To Stress

In some cases of a calcium shell, a person does not know how or for some other reason is unable to respond to stress well. Nutritional balancing can strengthen these people's bodies so they can handle stress better. Also, improved cognition, memory and other mental processing capabilities due to removing toxic metals and balancing the nervous system can also help them handle stress. In addition, some may need to learn other stress management skills such as assertiveness training, relaxation exercises, or others.

Overwhelming Stress

Others with a calcium shell are dealing with so much stress that they are unable to function without a protective wall to lessen the impact of their stress. In addition to a program to strengthen their body chemistry, these individuals may also need changes their lifestyle, relationships, job, or something else to reduce their stress level.

Slowing Down

Another reason for a calcium shell is to slow a person down. The lethargy caused by the high calcium has a slowing effect on individuals who have a tendency to drive themselves too hard. These are usually people with high copper levels and/or a pattern called sympathetic dominance.

A calcium shell may be an adaptive or protective device of the body to reduce one's stress level and perhaps to induce fatigue and even depression in order to prevent overworking, or overstressing the body in some ways.

SPIRITUAL ASPECTS OF A CALCIUM SHELL

Sensitive Individuals

People who have a calcium shell are usually extremely sensitive individuals. This may be one of the reasons the person chooses, at some level, to develop this particular hair tissue mineral

pattern, as opposed to the many other patterns the body uses to cope with reality. They adapt to the world by setting up their “wall of protection”, often early in life, before adulthood in many cases.

The shell stays with them usually for years, until the problems associated with the pattern become evident and they realize they need some kind of assistance but often do not know why or how to proceed. These people can be helped easily and quickly in many instances with a nutritional balancing program.

Spiritual Defensiveness

When the Ca/Mg ratio is greater than 13.5, it is a pattern called *spiritual defensiveness*.

A Excess Yin Pattern

In Chinese medical terminology a calcium shell is an extremely yin pattern in which a person is withdrawing, running away or perhaps hiding from the world using the body chemistry. Also, the pattern almost always occurs in slow oxidizers, who are much more yin than fast oxidizers. Also, the symptoms of a calcium shell tend to be yin symptoms such as fatigue, exhaustion, cancer or depression.

Movement - Advancing Slowly With The Brakes On

This is the ‘movement pattern’ that tends to go with a calcium shell. A movement pattern has to do with the way in which a person is handling life. When a calcium shell is present, a part of the person wants to move ahead, but another part does not want to move ahead. This is the meaning of moving ahead with the brakes on. This means that movement is very slow, often very measured, and conflicted or blocked to a great degree.

If the shell becomes too high, it means the brakes are on tightly and this is associated with the development of cancer and other serious diseases because a person will not move ahead at all. Normally, when movement stops, life also comes to an end soon after. This is one reason that helping a person move out of a calcium shell is very important.

Protection During A Phase Of Mental Or Spiritual Development

This is another understanding of a calcium shell in some people. It is seen in a few individuals, usually women, who are on a nutritional balancing program. However, their calcium shell persists for up to several years with very few adverse symptoms.

COMBINATIONS OF PATTERNS INVOLVING A CALCIUM SHELL

A calcium shell pattern is often seen with other hair analysis patterns. Among the most common are:

1. Four highs. This combination is called the [passive aggressive pattern](#).
2. A low sodium/potassium ratio.
3. An extremely slow oxidation rate.
4. Sympathetic dominance pattern. This combination is called Trying Too Hard.
5. A high Ca/Mg ratio. This pattern is called Extreme Lifestyle Stress.
6. Others, less commonly, including fast oxidation, wasting your time, double high ratio pattern, double low ratio pattern, or others.

Combinations Of Patterns

Hair analysis patterns that would tend to make a calcium shell even more severe are the following:

- A very low sodium/potassium ratio of 1 or less.
- A very slow oxidation rate, meaning a low level of sodium and potassium in addition to the highly elevated calcium level.

BIOUNAVAILABLE CALCIUM AND MAGNESIUM

In all cases of a calcium shell, some of the body's calcium, and usually magnesium as well, is biounavailable. This means it is not able to be utilized properly. Instead, it is depositing pathologically in the soft tissues such as the hair, arteries, brain, kidneys and elsewhere. This is not a healthful situation.

The cause is usually that the tissue or even the blood levels of sodium and potassium are so low that the body cannot maintain enough calcium in an ionized or soluble form in the blood. Sodium and potassium are *solvent-minerals* that keep calcium and magnesium in solution. As the levels of the solvents decreases, calcium and magnesium, in most cases, begin to precipitate into the soft tissues.

This creates a calcium deficiency in the blood, even if one eats enough bioavailable calcium, which is rare today. Eventually, it can lead to osteoporosis in most older people as the body robs the bones of some calcium to replenish the blood or serum calcium.

THE CALCIUM/MAGNESIUM RATIO WITH A CALCIUM SHELL PATTERN

Usually, a calcium shell is found with a high hair magnesium level.

Therefore the symptoms usually involve imbalances in both calcium and magnesium.

Amazingly, in many cases, the ratio between calcium and magnesium is maintained within the normal range of about 3.5 to 9.5, even when the calcium level is very high.

However, another common pattern is an elevated calcium/magnesium ratio.

Exceeding One's Carbohydrate Tolerance

When this ratio is between 9.5 and 13.5, the pattern is called *exceeding one's carbohydrate tolerance*. It is associated with too many carbohydrate foods in the diet. It is not an absolute amount of carbohydrates, but instead refers to the concept that a person is exceeding his or her tolerance for carbohydrates. In other words, it is an individual matter, and the exact amount that constitutes overdoing will vary somewhat from person to person.

Extreme Burn-Out

A low calcium/magnesium ratio. The meaning of a low Ca/Mg ratio is a little more involved, as it may be affected by the levels and ratios of sodium and potassium. However, when the Ca/Mg ratio is less than 3 (*on an initial hair mineral test only*) the pattern is called *extreme burnout* or another type of *extreme withdrawal* that tends to be more serious than just a simple calcium shell. In these cases, more magnesium loss is occurring. Since magnesium is a vital element, this is not a healthy pattern at all, whereas a simple calcium shell is quite common and not quite as pathological.

A CALCIUM LEVEL GREATER THAN ABOUT 1000 MG%

An extremely high hair calcium level is rare, fortunately. However, it does occur so it merits a separate discussion. In the few cases we have seen, it is a slightly different pattern, though all of the above applies.

Addison's Disease

In addition to the usual symptoms of a calcium shell, the person may have symptoms of Addison's disease, a chronic shutdown of the adrenal glands. This may only occur when the sodium level is also very low. Symptoms might include a dark pigmentation of the skin, very low energy, severe depression and withdrawal. It can cause a short lifespan if the situation is not corrected through nutritional balancing or even via drug medical care if no other alternatives are available to the patient.

Petrified

This word may be helpful to describe the psychological state of a person with a calcium level greater than about 350 mg%. Other related descriptions might be “turning to stone” or “buried in concrete”. These phrases might also describe what may occur in the body if the situation is not corrected. Petrified is not the same as terrified. Terrified is momentary, whereas petrified refers to a more chronic situation. However, both indicate extreme fear, extreme withdrawal and often some type of trauma as a cause.

Extreme Sensitivity

This is the other possibility with a very high calcium level. The person might not be petrified, but may simply need a lot more protection than others from the world. This is rare, apparently, but certainly possible.

Traumatized Badly

The reason a person may be protecting himself or herself with an extreme calcium shell is because there was some kind of physical or emotional trauma. The person may or may not be aware of this trauma. Fortunately, nutritional balancing will usually gently and easily bring up the trauma and help heal it.

CORRECTION

The calcium shell pattern is definitely correctable using a properly designed nutritional balancing program. Often it begins to respond quickly, within a few weeks to a few months. Other nutrition and healing programs, in my experience, will not bring down the hair calcium level nearly as well.

The nutritional balancing program includes supplementing with calcium and magnesium in a bioavailable form to replace that which is being lost. In addition to using calcium supplements, other ways to obtain high-quality calcium include eating sardines or other small fish with bones, drinking bone soup or **bone broth**, eating raw dairy products, taking kelp capsules and drinking daily 10-12 ounces of carrot juice or a little wheat grass juice.

Other nutrients that are needed when a calcium shell is present are B-complex vitamins, vitamin C and E, manganese, zinc, adrenal and thyroid glandular substance. A detoxification program using far-infrared mats, massage tables and detox footpads and plenty of pure water is helpful.

© This material was edited and adapted from an article by Dr. Lawrence Wilson, the Center For Development. Any information missing from the original article was deemed to be irrelevant or unnecessary for our purposes. Dr. Wilson is an amazing resource for hair mineral analysis education. He may be contacted at POB 54, Prescott, AZ 86302-0054, 928-445-7690.