Coral Calcium... A special report

Facts and Fiction

by
Warren Matthews
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This special report is largely a compilation of a series of three Xtend-Your-Life newsletters that I wrote during February and March 2003. The newsletters on Coral Calcium were prompted as a result of my receiving frequent emails with questions on this subject for a long time. During the second half of 2002 they became very regular, no doubt due to increased promotions of coral calcium, mainly through television infomercials.

Some of these emails/questions have been published in earlier issues of Xtend-Your-LIfe in which I have tended to dismiss coral calcium as being over hyped and poor value for money.

My view on it being over hyped has not changed and I feel that the claims of some of the promoters are nothing short of scandalous. But, I guess that could be said for some other products currently being promoted as well! With regard to it being poor value for money, that suggestion is true in many cases but not in all.

Because of the intense interest in Coral Calcium I thought that it would be appropriate to do some serious research on the matter. There is still more to do but I now have a good grasp of the basics and have been able to sort out fact from fiction part of which I am going to share with you in this report. There is quite a bit cover.

Let's start by doing a quick overview on coral calcium.

What is coral calcium?

As the name suggests, coral calcium comes from coral, which means it was once a part of an ocean reef. In fact, the product which is being sold as a dietary supplement is simply coral which has been ground up into a fine powder, purified, or processed. Coral reefs are formed primarily by Calcium carbonate which is produced by tiny coral polyps. These polyps feed on various forms of plankton which are rich in minerals.

I won't go into details about the structure of the coral except to say that it is the end result of minerals and trace elements which have been pre-digested by these little polyps. Because of the digestion process the minerals that make up the coral are considered to be organic, even the calcium carbonate which is usually inorganic. If you are interested in learning more about how the coral reefs came about I would suggest that you go to http://www.uvi.edu/coral.reefer/ which is an excellent website on the subject.

There are now a large number of companies promoting coral calcium but only about a dozen that actually harvest the raw product in Japan, or more specifically Okinawa which is a prefecture of Japan. These companies supply the coral calcium to manufacturers and distributors world-wide in either raw or finished form. Those companies then encapsulate the product or tablet them, often adding additional nutrients to improve the efficacy.

There is nothing exclusive about coral calcium. Manufacturers can source the raw coral calcium from a number of different sources, so if a promoter claims that they have exclusive rights to coral calcium you can discount that claim. The coral calcium processors are only interested in selling raw product and they do not have exclusive marketing arrangements.

If you are interested in using coral calcium as part of your health regime, it is important that you understand that...

Not all coral calcium's are the same!

This is in spite of the fact that most of the coral calcium's come from Okinawa. In common with most ingredients used in dietary supplements there are good and bad variations. The main aspect which creates that differential is:

a) The type of processing.
b) Whether the coral is harvested above or below sea.

There are two main types of processing carried out on the coral. One involves heating it to very high temperatures in order to evaporate the majority of the heavy metals. The other process involves purifying the coral with ozone to kill any bacteria present. The ozone treatment is not necessary when the coral is heated because that kills anything that's alive in any case.

It's actually quite simple to determine which type of processing the coral has been subject to. The high temperature processing is limited to the under sea coral whereas the above sea coral is usually treated with the ozone process.

There is a sound reason for the different types of processing.

It's all about contaminants and the different methods of harvesting!

There is a significant difference between the amount of contaminants in the above and below sea corals. The above sea coral is 'old' coral or fossilized coral and may be millions of years old. As such it was formed well before man begun to pollute the oceans. In contrast the below coral is nowhere near as 'old' and as it is still in the ocean it has, and is being subjected to industrial pollution.

The difference becomes clear when you examine the certificates of analysis of the various 'brands' of coral calcium supplied by the Japanese harvesters and/or processors. The undersea coral is heavily contaminated with heavy metals including mercury as well as PCB's. (Pesticide residues) Even after they have been given the heat treatment the levels of heavy metals, although safe are well above those in the above sea coral before any treatment at all.

The seas around Japan are heavily polluted as are most Northern Hemisphere waters. I remember that it was not all that many years ago when there was a major mercury problem in local fish that caused serious illness and many deaths in Japan. The cause was traced down to a factory releasing mercury direct into the ocean.

Although they have cleaned up their 'act' to a degree on this particular issue pollution is still a serious problem. Mind you, it is also serious in North America when literally thousand of tons a year of mercury are released into the ocean, which has prompted the FDA to issue warnings about consuming some types of fish.

Anyway, it is no mystery as to why the undersea coral has such high levels of heavy metals prior to processing.

In contrast, the above sea coral is harvested from the Okinawan islands in much the same way as open case mining. The top soil is removed and the coral is 'mined'. These islands are made from ancient coral reefs which have become islands through shifting ocean levels over the ages. Therefore this coral has not been exposed to industrial pollution.

The undersea coral is harvested using big suction dredges mechanically working the ocean bed around the reefs. The dredges suck up everything in their path including stones and all sea life in the vicinity and there is not doubt that the damage to the ecology is significant.

Calcium/Magnesium ratios of coral calcium

This is an interesting issue. One major supplier of coral calcium produces a product which contains a suggested 'ideal' ratio of 2 parts calcium to 1 part magnesium. Note: There has never been any scientific validation of the 'idealness' to my knowledge and in some ways it's a little strange given that calcium and magnesium are antagonists. In other words they oppose each other. (More on this later).

Anyway, I asked the Japanese suppliers if they add magnesium to obtain this 2:1 ratio. They adamantly deny this but they cannot supply evidence that they don't. Rather interesting in that no independent scientists have ever found that ratio of

calcium to magnesium in any samples of coral or for that matter anywhere else in nature.

So, if you are buying coral calcium with a 2:1 calcium/magnesium ratio you can be certain the magnesium has been added. That may be OK, no one really knows... just disconcerting that all is not 'up front'.

If you have looked into buying coral calcium you will have found that there can be some big variations in price. This is where you need to exercise some good common sense judgment. Quality coral calcium is not cheap, but then it should not be as expensive as some of the products on the market. In my opinion the above sea coral is definitely best, providing it has been ozone treated.

Avoid the really cheap products as some of these coral calcium's may be of questionable purity. For your information one of our subscribers referred me to a website called coral calcium watch-dog.com. The URL is http://www.coralcalcium-watchdog.com/compare.htm it's worth looking at if you are contemplating buying coral calcium.

Now that we have covered the product in general terms we can now look at the questionable claims.

Questionable claims!

The claims made by many coral calcium promoters are extensive and need to be put into perspective. Unfortunately in order to do so it is necessary to refute a number of them. This is a pity but it should not reflect on the product itself but rather on the methods used in its promotion.

The following are typical 'questionable' claims:

- Coral Calcium contains a special microbe that pulls minerals through the intestinal wall.
- Coral Calcium 'cures' cancer.
- Coral Calcium can change the cells of the body from acid to alkaline.
- Coral Calcium is the reason for the longevity of the Okinawan people.
- Coral Calcium is safe in large doses.

Let's first examine the most ridiculous claim. "Coral Calcium contains a special microbe that pulls minerals through the intestinal wall".

This is so far out that I can only shake my head in wonderment how the promoters can still get away with it! Anyway, this is what the promoters claim and I quote: "When you take below sea Coral Calcium there are special microbes that will come out of the coral and literally pull the minerals through your intestinal wall into the blood stream". This I'm afraid is pure fantasy as no such microbes

have even been found in coral and should such a 'beast' exist I doubt very much that it would be hardy enough to withstand the 1,000 degree heat which marine coral is subjected to as part of the process to vaporize heavy metals. That would be one powerful microbe!!

Coral calcium cures cancer?

Some companies claim that coral calcium cures every imaginable type of cancer. They also claim it will cure just about any other ailment as well

There is evidence that suggests that calcium in general is helpful in preventing colon cancer. Calcium acts as a protective agent in the colon, precipitating carcinogenic surfactants which in turn protect the epithelial lining of the intestinal tract. (Lapre, et al, 1993)

I am sure that coral calcium as with other calcium's is helpful in fighting other cancers as well PROVIDED it is combined with part of an overall wellness regime. But, to say it is a cure for cancer is way over the top! A program for the prevention of cancer is multi-faceted and no one single nutrient can do it all.

Changing the cells from being acidic to alkaline

Much of the argument supporting the claims of coral calcium to cure cancer and many other ailments is based on the premise that when you ingest coral calcium you change the pH state of your body and thus the cells from acid to alkaline. (pH is the term used to measure the degree of acidity or alkalinity in the body). The promoters of this 'cure' claim that cancer cells cannot survive in an alkaline environment. This is true... but no cells including healthy ones can live in an alkaline environment either so the argument is negated.

Taking calcium supplements or eating certain foods can change your pH levels…but only in your body fluids, not your blood. So, the argument that the actual cells are changed from being acidic to alkaline after ingesting coral calcium is questionable. The evidence suggests that the cells like the blood maintain a neutral pH. This same principle applies to any other substance that you may ingest. To better understand the logic behind this…a quick biology lesson:

Your stomach is always acidic. It has to be otherwise you could not digest your food. When your food passes out of your stomach into your intestine it is acidic. Secretions from your pancreas neutralize the acidity. The fluctuation between acidity and alkalinity is very small and is controlled by your organs.

The medical mainstream position is that neither the intake of food or supplements will have any impact on the acidity of your bloodstream or your cells

but it will on the pH of your body fluids. In the absence of any evidence to the contrary I tend to go along with that view.

The longevity of the Okinawan people!

There is no doubt that the Okinawan people of Japan do enjoy longer lives and keep better health than the average westerner, but it is far too simplistic to suggest that it is due to the ingestion of coral calcium. I have no doubt that the water that they drink which has been filtered through the coral on their islands (not from the bottom of the ocean) has played a measurable part in their good health... but only a part.

A major factor in their good health and longevity is their lifestyle and diet. It is so far removed from that of a typical westerner. They are far more active, eat less processed food and the food that they do eat is more nutritious, they have less stress and take few if any prescription drugs.

To compare these people is like 'apples to oranges' and their reported good health should not be an influence on whether or not to take coral calcium.

You can't overdose with coral calcium...

Don't believe it. You can overdose with any substance…even water. True, if you take in more coral calcium than your body needs the excess will pass through you. But, there is the potential of upsetting the balance of the mineral in your body and creating complications. For example, it is possible to get hypercalcemia if you ingest too much calcium. This has been found to be a problem with people who use liquid ionized calcium supplements.

Hypercalcemia is a condition characterized by disturbances in neuromuscular function, muscle weakness, polyuria, dehydration, thirst, anorexia, vomiting and constipation. This problem comes about due to excess serum calcium which interferes with parathormone which controls in part the distribution of calcium in the body.

Unlike liquid ionized calcium supplements this condition is not common with people who take a powdered form of calcium. Nonetheless it would be silly to put it to the chance. A suggestion that 6 grams a day of coral calcium is OK, is in my opinion taking an unnecessary risk. I personally would not exceed 2 grams a day and would suggest that 1.5 grams is more sensible. (That's what I will soon be taking)

That's the last of the bigger 'out of line' claims by the promoters of coral calcium. Please appreciate that it has not been my intention to put you off coral calcium in any way, and I hope that I have not done so. I believe coral calcium has a number of benefits over an above other calcium supplements but just remember

that it is first and foremost a valuable calcium supplement…not a miracle substance which will cure all that ails you!

Coral Calcium...the Real Benefits!

Following on from the more outrageous claims that some of the promoters of coral calcium make I will now address some of the REAL benefits of coral calcium. These are benefits for which the supporting evidence is really strong.

The following are claims that have scientific support:

- Coral calcium becomes ionic when exposed to moisture thus making it significantly more bio-available.
- Coral calcium, of which calcium is only one component also includes a further 74 trace minerals in proportions fairly similar to that of the human body. NOTE: This does not apply to the below sea 'marine' coral calcium which has additional magnesium added.
- Coral calcium changes the pH of the body fluids (not the blood which maintains a constant pH).
- Coral calcium will help weight loss.

Let's look at these claims/benefits one at a time...

Coral calcium becomes ionic...

Bio-availability is one of the key issues for all minerals, and in particular for calcium. Coral calcium unlike some other calcium derivatives such as its inorganic cousin calcium carbonate has the ability to become ionic when it comes in contact with moisture. Note: This ability certainly applies to the above sea type coral which is in its natural state. It may not apply to the below sea or marine type because that variety of coral has been subjected to extreme heat during processing for the removal of excess heavy metals. The heat changes the coral from a natural aragonite form to a calcite crystal.

Anyway... the ability for coral minerals to become ionic (which is the term for particle sizes even smaller than colloidal) ensures that the calcium can do some good. It needs to be ionic and in the presence of other minerals (not excess magnesium which is an antagonist to calcium) and vitamin D3 when it gets into the blood stream. If all these factors are present then ionic exchange of calcium can take place. In other words the calcium in the blood can be absorbed by the bones to take care of bone calcium deficiencies.

This is why many people who are taking a lot of calcium supplements which are not ionic will often find that their osteoporosis continues to get worse, and even more serious that the calcification of soft tissues which can lead to arthritis and heart disease is accelerated. Unless the calcium can be converted into an ionic

form they would be better off not taking it as these calcium supplements may actually speed up the leeching of calcium from the bones.

Coral calcium contains 74 trace minerals...

This is also true; there are 74 trace minerals in coral calcium. Just exactly what benefits these trace minerals give to the human body is not as yet fully understood. Nonetheless there is sufficient evidence to suggest that it is beneficial to take these trace minerals in the proportions as they occur in nature in the form of coral. It is interesting to note that the ratio of calcium to magnesium in above sea coral is about 43:1 which is very similar to the ratio in the human body which is 48:1. Similar ratios to the human body have been noted with some of the trace minerals as well. This would explain why pieces of coral are often used by orthopedic surgeons for bone grafts as the body readily accepts the coral as part of its natural structure.

An exception to this is the below sea coral calcium which has a 2:1 calcium to magnesium ratio. Although they claim this is natural it is nonsense and the manufacturers have never been able to substantiate their claims. Magnesium is an antagonist to calcium and to a number of other minerals if taken in excess. In other words it acts to neutralize the calcium if present in excessive amounts. For this reason I don't believe extra magnesium should be added to coral minerals.

I feel that the additional natural trace minerals present in coral calcium could be a major factor in its efficacy. In fact some scientists believe that the trace minerals in the coral are even more important than the calcium itself due to the beneficial effects they have on nerves and enzymes.

Coral calcium changes the body's fluids from being acidic to alkaline.

Remember that we are talking about body fluid here, not blood. The pH of the blood remains constant. There is no doubt that coral calcium changes the pH of urine and saliva from acidic to alkaline. This is easily proved.

As you will probably recollect I raised this issue earlier in this report as some promoters use this fact as an argument in suggesting that coral calcium will cure cancers. As I said, I think that this claim is way 'over the top'. Nonetheless, changing your body fluid from being acidic to slightly alkaline can only be good for your health... and in that regard coral calcium will help.

Coral calcium will help weight loss...

This is an interesting benefit which has not been latched onto yet by many coral calcium promoters... but, I am sure that you won't have to wait long to see this happening.

In February 2003 the US National Institute of Health published a review of studies that linked the intake of dietary and supplemental calcium to body weight. Their researchers found that:

- Subjects with elevated body weight had lower levels of calcium intake.
- Those people which had the highest levels of weight loss also had the highest levels of calcium intake.
- Those people with diets high in dairy and calcium had greater losses of fat in the trunk area. (Note: Don't get your calcium from dairy unless it is in the form of occasional hard cheese)

The NIH felt that the studies that they reviewed were conclusive enough to justify larger population based clinical trials. They are currently enlisting volunteers for this new study.

But, before you get too excited about this just remember that this is but one component of weight normalization. I will tell you the rest when I get to finish the special weight loss report, which is not too far away now.

Conclusions...

There is a place for coral calcium within your health regime. However, it must be appreciated that it is just one component of many. If you are a female over 35 it is indeed desirable for you to take supplemental calcium and above sea coral calcium is a good choice. The problem with coral calcium though, is that many of the high quality products are quite expensive. Because we are comfortable with overall benefits of coral calcium we have developed our own product which is vastly superior because of what we have added to it.

As you probably realize coral calcium has to have various co-factors with it for maximum efficacy…boron and vitamin D3 being two of these. Other co-factors can also be of benefit. With this in mind we developed a product which is only a little more expensive than good quality coral calcium products (and cheaper than some) but is vastly superior in the nutrients that it delivers. Even though it has the full dose of pure coral calcium per day (1,500mgs) it also contains a further 4,500 of other beneficial nutrients primarily in the form of New Zealand red and green phytonutrients.

I think you will find it is well worth checking out. Do so by viewing the following URL: http://healthybody.xtend-life.com/products.asp?product=cc&id=452447.

In good health,

Warren Matthews

Info about the editor