

# VITAMIN D & OMEGA 3



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## Introduction

Fats always seem to be in the headlines these days. One minute we are told they are bad for us then an article appears about why we need to include a sufficient quantity in our diets. The following chapters unravel the myths about fats and why I think taking an omega 3 supplement is worthwhile.

Information on vitamin D is confusing in the press. Should we go out in the sun to get our vitamin D? What about skin cancer? Of course this very much depends on where you live—are you in the northern hemisphere or do you enjoy an abundant quantity of sunshine on a daily basis? And what about your skin type since that is also an important factor on whether you can tolerate sun or not.

I hope you enjoy reading about vitamin D and learn about why I think it's an important supplement to take.



# Chapter 1

## Unravelling the myths about fats

Omega 3 is an essential fatty acid and since fats seem to be in the news constantly. I thought I would start off by discussing the different types of fats and why omega 3 is one of the important ones.

### Trans fatty acids

Trans fatty acids are produced when vegetable oils are hydrogenated.

This chemical process causes the oil to become solid. An example of a product is margarine. The food industry welcomes this type of fat because it lasts longer without 'going off' and, because of its consistency, it works well in baking and even deep frying.

But your body regards these trans fatty acids as 'foreign'. They actually lower the levels of 'good' cholesterol and therefore increase the risk of coronary heart disease.

There are also reports that they can increase inflammation which again may cause heart disease and possibly increase the chances of developing asthma.

I suggest cutting these types of fats out of your diet completely.



### Omega 6 fats

The western diet is generally overloaded with omega 6 fats. Examples are corn, soya, sunflower and safflower oils. Generally the ratio of omega 3 to 6 is out of step for ideal health. This should be 1:1 but in many cases it can be over 1:20. If you take too many omega 6 fats then it can cause ill health. Some examples are heart disease, cancer,



depression, Alzheimer's disease to name but a few. Getting your ratio into balance can improve your health.

It has also been reported that heating these oils transforms them into trans fatty acids which, as I have already stated, trans fatty acids should be avoided at all costs.

### Olive Oil

This is a monosaturated fat and is good for your health because it contains several nutrients including vitamins A and E. It is obtained from the fruit of olive trees. This is an unprocessed oil meaning it hasn't been heated and to get the best from it it should be used uncooked e.g. on salads. It is an omega 9 fatty acid and I suggest to get all the benefits from this oil you should use extra virgin olive oil. It is an unrefined oil and is packed full of antioxidants and anti-inflammatories. (Remember-inflammation in the body can lead to disease. It should be kept away from light because it can deteriorate quickly if not stored correctly but that is it's only fault -it has many health giving properties.

### Saturated fats

Saturated fats have generally got a bad name in terms of heart disease. If however you look at some races round the world whose main diet consists of meat and milk, you find they have low cholesterol levels.

Examples of foods that contain saturated fats are meat, dairy and confectionary.

These fats are very stable at high temperatures. They don't become rancid and alter with heat to become trans fatty acids. One saturated fat I particularly like is coconut oil. I buy good quality organic coconut oil for cooking because I know it will not become toxic.

The next chapter has all the information you need on why you should supplement with omega 3.

## Chapter 3

### The benefits of omega 3

The word essential tells us just that – it must be obtained from our food or supplements. The best source of omega 3 is from oily fish.

Examples are:

- mackerel
- kippers
- fresh crab
- trout
- salmon
- herring
- sardines
- whitebait
- swordfish
- shark

You do also get omega 3 from white fish such as:



- haddock
- cod
- plaice
- dover sole
- red mullet

But these fish contain the least amount of omega 3.

Omega 3 consists mainly of two components EPA in and DHA. These two

components are in your brain tissue, the retina (back of the eye), adrenal glands and sex glands.

Lets look at how this essential oil is beneficial to your heart.

If you were unlucky enough to have a heart attack or stroke then what was happening was that the blood platelets had become sticky. With EPA and DHA, they reduce the clotting possibility in blood and arteries.

One of the measures of your heart health used by most health professionals is your cholesterol level. Taking omega 3 can lower triglyceride levels and the 'bad' cholesterol component of your blood. Blood pressure can be lower and because of the effect on certain hormones, the clot forming property of the oil reduces.



### Skin, nails and hair

In order to have strong nails, glossy hair and silky skin, you need to be taking essential oils. You can rub creams and oils on your face but to get your skin nourished to the point where it feels softer and smoother, your body needs to have an adequate level of essential fatty acids. The same applies if you want to have less wrinkles and have a youthful complexion. There is also a body of evidence that suggests that one of the nutritional components required to protect the skin from the damaging effect of sunlight is essential fatty acid rich oils. I say one of the components because you need to have a diet which includes vitamin E, C, A and minerals such as selenium, zinc and sulphur. Dr Budwig, researcher, even suggests that it is deficiency in the essential fatty acid oils that contributes to skin cancers caused by sun exposure.

### Arthritis

Arthritis is pain in the joints and muscles where there is bone deterioration and inflammation. This can cause stiffness and pain.

The essential fatty acids are required to lubricate your joints and are also needed to build bone and help move minerals to where they are needed.

Often pain in the joints can lead to giving up sport and worse case starting to live a sedentary life.

Regular exercise, as well as increasing metabolic rate which means you burn more calories, also helps you lose the fat which is causing weight gain in most women.



## Eyes

Research has shown that omega 3 may have a protective effect in macular degeneration. This condition is a deterioration of the macula in the back of the eye. The first thing you might notice is, when looking at a square object, the sides appear deformed. What's happening is you are starting to lose your central vision so that in acute cases

you can only see out of the sides of the eye. The vision becomes more and more blurred until you have difficulty making out faces. As well as omega 3 I suggest you supplement with lutein and zeaxanthin and of course your diet should be full of different coloured vegetables and eggs and spinach seemed to have the highest proportion of these two substances.

### Menopausal symptoms

You, like many women may find the menopause a difficult time. As well life changes e.g.saying good bye to family leaving the house empty and quiet, there are symptoms in your body that can take over your life. Hope is at hand though.

In 2009 a group of Canadian researchers found that the symptoms of depression and hot flushes were reduced when these women supplemented with omega 3.

Although omega 3 is required for our brains, studies have not shown categorically that it does improve cognitive function. I'm taking it anyway.



## Chapter 3

### Vitamin D and skin cancer

The best way to get our bodies topped with vitamin D is from the sun. The first problem of course is where you live. In northern areas of the world it is difficult to access the correct wavelength of ultraviolet light to produce vitamin D in our bodies between October and April. Vitamin D from the sun lasts twice as long as vitamin D taken from our diet. At the moment conflicting statements are being issued by government, cancer institutions and health professionals. The message there is cover up in the mid-day sun and wear high factor sunscreen when you are out in the sun.

Without sunscreen, when you expose 80% of your body to the ultraviolet light (if is high enough in the sky to produce the correct wavelength), then your body will produce between 10,000 and 25,000iu by the time your skin becomes pink. The sun causes wrinkles and of course melanoma where skin has been burned.

It is best to cover up the face, scalp and ears if you are going out in the sun. Sunscreen with an SPF of 15 will reduce vitamin D production by 95%. Tanning in the skin is a mechanism which protects the skin from further damage.

Sunburn causes an erythema (the skin becomes red and sore). This causes an increase in blood supply to the damaged area. It is confusing when research has shown that melanoma (skin cancer) is more prevalent in people who do not receive regular sunshine exposure.

You would think that staying out of the sun would offer more protection against skin cancer but this is not the case. Melanoma generally occurs on places not exposed to the sun. Rates are rising steadily yet people spend less time outdoors.

Modern lives mean often excessive sun-bathing in short bursts. Skin cancer occurs when cells divide too quickly and melanoma or non melanoma skin cancer such as basal-cell carcinoma (BCC) and squamous cell carcinoma can happen. The most common areas for BCC to occur is the face, nose, ears and back of the hands.



Again the most exposed areas of the skin to the sun can produce squamous cell carcinoma. In prolonged exposure to the sun, damaged cells may not be recognised by the body's own defence system and therefore allow them to grow out of control.

## Chapter 4

### The benefits of vitamin D

#### Cancer prevention

Breast cancer rates tend to be higher in areas with low levels of winter sunlight. Those women who are exposed to UVB rays ( the sun's rays that produce vitamin D in the skin) and consume above average amounts of vitamin D from diet have significantly lower breast cancer rates. Disturbingly, women who have the lowest vitamin D levels (in the lowest 25%) had a risk of cancer 5 times higher than those with the highest levels.

These are indeed worrying statistics.

Belgian researchers looked at survival rates and size of breast tumours in women and they found that the women with higher vitamin D levels not only had smaller tumours but also had better outcomes—they lived longer. My colleague Dr Helga Rhein, a GP in a deprived area in Scotland routinely prescribes vitamin D for her patients particularly if they have had a history of breast cancer

#### Autoimmune diseases

An autoimmune disease is where the body turns in on itself and breaks down its own tissue.

Lupus is an example where virtually everyone with this disease will be low in vitamin D and unfortunately going out in the sun can produce skin rashes and a possible relapse of the disease

Multiple sclerosis (MS) is an autoimmune disease that has links with vitamin D deficiency. In MS the fatty myelin sheaths round the nerves of the brain and the spinal cord are damaged and that means the messages that travel along the nerves slows down. It generally affects young people especially women. If you have links with MS in your family I strongly urge you to get everyone to take a vitamin D supplement.

Allergic diseases such as asthma, rhinitis and eczema are linked to regulatory T cells. The researchers suggest that using either low dose steroids or vitamin D could be used to stop the immune response in these diseases and therefore reduce symptoms.

### Bone disease

One of the first diseases linked to deficiency of vitamin D was rickets. This is a bone softening disease in children and although diet is a factor in having adequate levels of vitamin D, the main way the body obtains its vitamin D is through exposure to sunlight, specifically UVB rays between 270 and 300nm wavelengths. Osteomalacia is an adult bone disease also caused by vitamin D deficiency. This disease shows itself as muscle weakness with fragile bones causing severe pain. If you are not getting exposure to sunlight and have reached or gone past your menopause then you are more at risk of broken bones if you are vitamin D deficient.

### Coughs colds and chest infections

The misery of having coughs, colds and even 'flu in winter is not inevitable.

The number is reduced when vitamin D levels are raised and even if you are unlucky enough to catch a winter bug then it is far less severe when your immune system is up to scratch.

## Chapter 5 Do's and don'ts of supplementing

### The 'do's' and 'don'ts' when buying omega 3

Don't be taken in when you see large signs saying 'Omega 3 1000mg'. This usually just means the weight of the capsule. What you should be looking at is the number of mg of the constituents, EPA and DHA. I recommend a minimum of 590mg of EPA and about 130mg of DHA. The rest of the capsule should be made up of other omega 3 fatty acids.

The other thing to notice is the price. Something at £3.99 for a 100 is not going to be the same quality as a pot for £25.00

I suggest taking three quality capsules per day if you are looking to help with menopausal symptoms or sore joints. For everyone else, take two daily and I tend to take mine morning and night and to help



with absorption, take after a meal.

### What about doses of vitamin D?



When you go to buy vitamin D the first thing is to make sure is you buy D3 and not D2. This is because the D3 type is metabolised differently in the body and will get your levels up quicker.

People ask me about doses. I tend to like to test before suggesting higher doses but if you are a woman in one of the northern countries with little exposure to natural sunlight then I suggest a minimum of 2000iu of colecalciferol (D3) daily.

What I look to do is to get your levels up to about 100 (25(OH)D) and if you have had a cancer, over 100. Yes you could overdose if you took mega doses and a couple of people with certain conditions shouldn't take supplements. People with sarcoidosis and those with severe kidney stones.

#### What if I am already taking medication?

Generally it is not a problem. Certain medication for epilepsy and some diuretics (water tablets) may have an interaction but for specific advice check with your healthcare professional.



## Conclusion

I hope you have the information now to make the decision to take these two supplements. Clearly if you are getting enough sunshine and exposing your skin to the right type of sunlight then you may have adequate levels. One way to check is to do a test. You can order your test at [www.newlifehealthcare.co.uk](http://www.newlifehealthcare.co.uk). We'll then help you decide what you need to take if your deficient.

Omega 3 is probably needed if your diet is low in oily fish. Many of my patients have found a benefit when they have taken the supplement and hopefully you will too.

For more information on how to really lead a quality life as you age then go to [www.erqualitylife.com](http://www.erqualitylife.com)