

# ENVIRON<sup>®</sup>

## GOOD SKIN SENSE NEWSLETTER

Volume 2



### TOPICAL USE OF VITAMIN A IN PREGNANCY

Foetal abnormalities are relatively common and in the USA there is a trend to advise people using topical vitamin A not to use it during the first trimester of pregnancy – not because it is a risk, but because the companies do not want to have any mistaken attribution of an abnormality to topical vitamin A and the subsequent risk of litigation. When we think of vitamin A causing foetal abnormalities we are specifically thinking of oral cis-retinoic acid (e.g. Roaccutane) in which case doses of 300,000 international units (i.u.) of vitamin A are usually used.

The amount of vitamin A in a skincare cream starts at about the same amount of vitamin A as that contained in an egg or two. One egg contains about 260 i.u. of vitamin A. When rubbed onto the skin a minimal amount (if any) will get into the skin cell. A slice of liver contains about 20,000 to 50,000 i.u. It is extremely unlikely that topical vitamin A could ever pose a health risk, or a risk to pregnancy – unless the whole tube is taken by mouth!

Your skin already contains vitamin A (of which more than 90% is in the form of retinyl palmitate) which is destroyed by light so it still needs to be replaced daily to stop lines, wrinkles, pigmentation and premature ageing. We recommend you use the EssentiA Oil every day while pregnant on areas at risk (such as stomach, hips and breasts) to help to avoid getting stretch marks.



**SENSA SKINCARE PTY LTD**  
Distributors of  
Environ<sup>®</sup> NSW and ACT  
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### THE DIFFERENCE BETWEEN A PRESCRIPTION VITAMIN A AND ENVIRON<sup>®</sup>'S VITAMIN A (RETINYL PALMITATE/ACETATE).

1. The vitamin A prescribed by a doctor, such as Retin A or Stieva A is called Retinoic Acid or Treninoin and is the acid form of vitamin A.
2. Retinoic Acid is not the storage form of vitamin A in the skin, it is Retinyl Palmitate.
3. These acid forms of Vitamin A make the skin sun-sensitive so should only be used at night.
4. It makes the skin red and sensitive.
5. It is uncomfortable to use.
6. Environ uses Retinyl Palmitate which does NOT make your skin sun sensitive.
7. Retinyl Palmitate can safely be used during the day.
8. Retinyl Palmitate does not make your skin red or sensitive.
9. The storage form of Vitamin A in the skin is Retinyl Palmitate.
10. Therefore >90% of the vitamin A found in the skin is in the form of Retinyl Palmitate.

A B E A U T I F U L S K I N F O R A L I F E T I M E

WHY ARE THERE SO MANY DIFFERENT LEVELS OF THE ENVIRON CREAMS, SUCH AS DEBUT, MILD, CLASSIC, RICH AND ULTRA AND ALSO 1, 2, 3, 4 IN THE C-QUENCE GELS?

1. Light destroys Vitamin A in our skin. Vitamin A in turn protects us from premature ageing. So if we want to stop the wrinkles, pigmentation, rough skin and skin cancers, we need to replenish the vitamin A every day because it is destroyed each time we go out into the light (even on a cloudy day).
2. We call sun damage or photo damage a Vitamin A deficiency disease.
3. To correct this deficiency we apply topical Vitamin A to our skin. However, it is not so simple because the little vitamin A receptors in the skin may have stopped working from lack of use, so we need to “wake them up” slowly, by applying small amounts of Vitamin A to the skin.
4. If we apply too much Vitamin A too soon then the skin doesn’t know what to do with the Vitamin A so it reacts by becoming red, itchy and sensitive.
5. Environ is the only skin care company that addresses this deficiency by slowly introducing vitamin A to your skin on a gradual basis so that your skin does not feel sensitive or uncomfortable. **SPEAK TO YOUR SKIN CARE PROFESSIONAL ABOUT WHICH VITAMIN A LEVEL TO USE ON YOUR SKIN.**
6. For example, it is like feeding a tiny baby on a diet of only milk - steak, chips and salad! The baby cannot digest the solid food which has to be introduced very slowly. It is the same with Vitamin A - introduce it slowly and a little at a time until the vitamin A receptors can “digest” the vitamin A.
7. The introduction of Vitamin A should start when one is young so that it prevents sun damage and the resultant wrinkles and eventually skin cancer.
8. Remember the sun destroys vitamin A in your skin so you need to replenish it every single day.



ORIGINAL RANGE



C-QUENCE RANGE

ANTIOXIDANTS

Antioxidants are substances which prevents oxidation from occurring. They are free radical quenchers, which are used to counteract the effects of those free radicals that are formed, e.g. vitamins C, E, B5, beta-carotene and antioxidant plant extracts. There are innumerable new plant extracted molecules being discovered each claiming to be better than the next. What is often not known is how well these will penetrate into skin to be useful as a topical application. The vitamins and beta-carotene are known to work well and are predictable in their actions. These therefore remain the mainstay of constituents in Environ products.





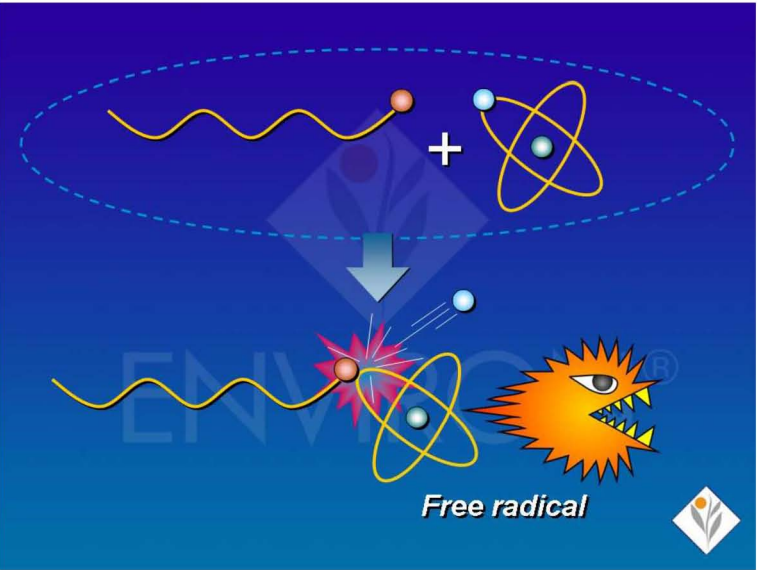
Photo Ageing is a Vitamin A deficiency disease caused by the sun and free radicals

### FREE RADICALS

Free radicals are atoms that lack an electron. In their quest to gain an electron they alter other atoms in other molecules and that sets off a chain reaction that usually results in destruction of thousands of molecules. Light is made up of photons which are packets of energy. A photon can strike an atom just at the moment that an electron is in the way and that electron is shot off like a billiard ball into the surrounding environment. That means that the atom that has been struck is now deficient of an electron and has become a free radical. The most common free radicals, ironically enough are singlet oxygen atoms. Free-radical atoms attack certain tissues more than others and unfortunately the vital nuclear DNA material is very vulnerable. Once DNA is damaged cell function is compromised and may lead to different cellular diseases and cancer. The process of damage is called oxidation, which in simple terms is the same as rust.

### HOW LONG DO THE ANTIOXIDANT VITAMINS ACT IN THE SKIN AND WHY ARE THEY SO IMPORTANT?

Vitamin C will stay in the skin for 30-36 hours, while vitamin E has a shorter life-span. The difference between vitamin E and C is important because vitamin C is essential for recycling vitamin E. Vitamin E deals with one free radical and then is inactivated whereas vitamin C can tolerate a few more free radicals. Beta-carotene has a long life in the skin because it can handle about 1 000 before it becomes defunct. Other carotenoids such as lycopene and lutein (which are in the Environ C-Quence range) also work exceptionally well.



One of the advantages of understanding the life of the antioxidants in the skin is that when you use a sunscreen like Environ's RAD, you know that it may be washed or sweated off, but the vitamins will not be, because they are absorbed into the cells. Only a small percentage applied to the skin's surface manage to get into the cells, but they're there. In this way, if you rub an antioxidant cream onto a child the night before, then they are protected to some extent the next day. If you then put the antioxidant cream on in the morning, you provide a lot more protection. Even though they may forget to reapply the cream, you're still helping them. There are strong indications that sunscreen without adequate amounts of anti-oxidants may have no beneficial effect on prevention of skin cancer or photo-ageing.

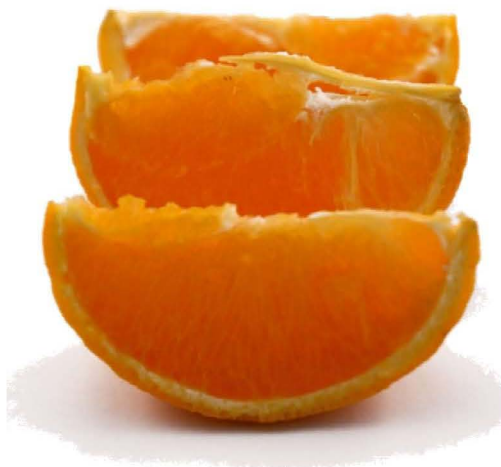
In 2000, a panel of experts in Lyon, France, declared that sunscreens may be contributing to skin cancer formation, because they coax people into a false sense of security about staying out in the sun for longer. This increases the skin cell damage. It seems logical that the presence of molecules like the anti-oxidants may well assist in the protection of vulnerable molecules.



# VITAMIN C

## BENEFITS OF TOPICAL APPLICATION:

- \* Stimulates collagen and elastin.
- \* Provides anti-oxidant defense.
- \* Lessens the appearance of hyperpigmentation.
- \* Helps to minimise UV damage.
- \* Maintains healthy skin.
- \* Increased moisture levels.



## DIFFERENT FORMS OF VITAMIN C

1. Ascorbic Acid: water-soluble; oxidises easily; discolours brown; difficult to penetrate into the skin; difficult to enter the cell membrane which is oil soluble; very unstable, short shelf life; acid so irritates the skin.
2. Magnesium Ascorbyl Phosphate (MAP): water-soluble; relatively unstable; limited shelf life.
3. Ascorbyl Tetraisopalmitate: lipid (oil) soluble so penetrates easily through cell membrane and into cell as the cell membrane is made up of lipids; very stable – over 12 months; long shelf life; 10x more active vitamin C in cell itself; more compatible to skin so no skin irritation.

### Note:

Vitamin C goes brown when it oxidises. Some companies are starting to put a brown dye into their vitamin C products. There are no benefits of putting a brown dye onto your skin other than to disguise the fact that it has oxidised.

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FOR SKINCARE THAT MAKES A DIFFERENCE