HERBAL Series

Deep Blue Health New Zealand Ltd
A certified nutraceutical and natural health supplement company

DEEP BLUE HEALTH™
NEW ZEALAND

Sun Protection ciRos™

Anti-Aging Effects

CLINICALLY PROVEN TO IMPROVE SKIN RESISTANCE FROM THE SUN

SUN PROTECTION NUTROXSUN® SKIN WHITENING, ANTI-OXIDANT

NEW ZEALAND MANUFACTURED

NUTROXSUN® SUN PROTECTION

GOOD MANUFACTURING NEW ZEALAND PRACTICE GMP

PURE • POTENT • TRACEABLE

MANUFACTURED IN NEW ZEALAND

RESISTANCE FROM THE SUN & SKIN WHITENING EFFECTS

Dedicated to finding solutions for well being and anti-ageing. Using pure, potent, traceable ingredients to create quality natural health supplements.

DEEP BLUE HEALTH
NEW ZEALAND

www.deepbluehealth.co.nz

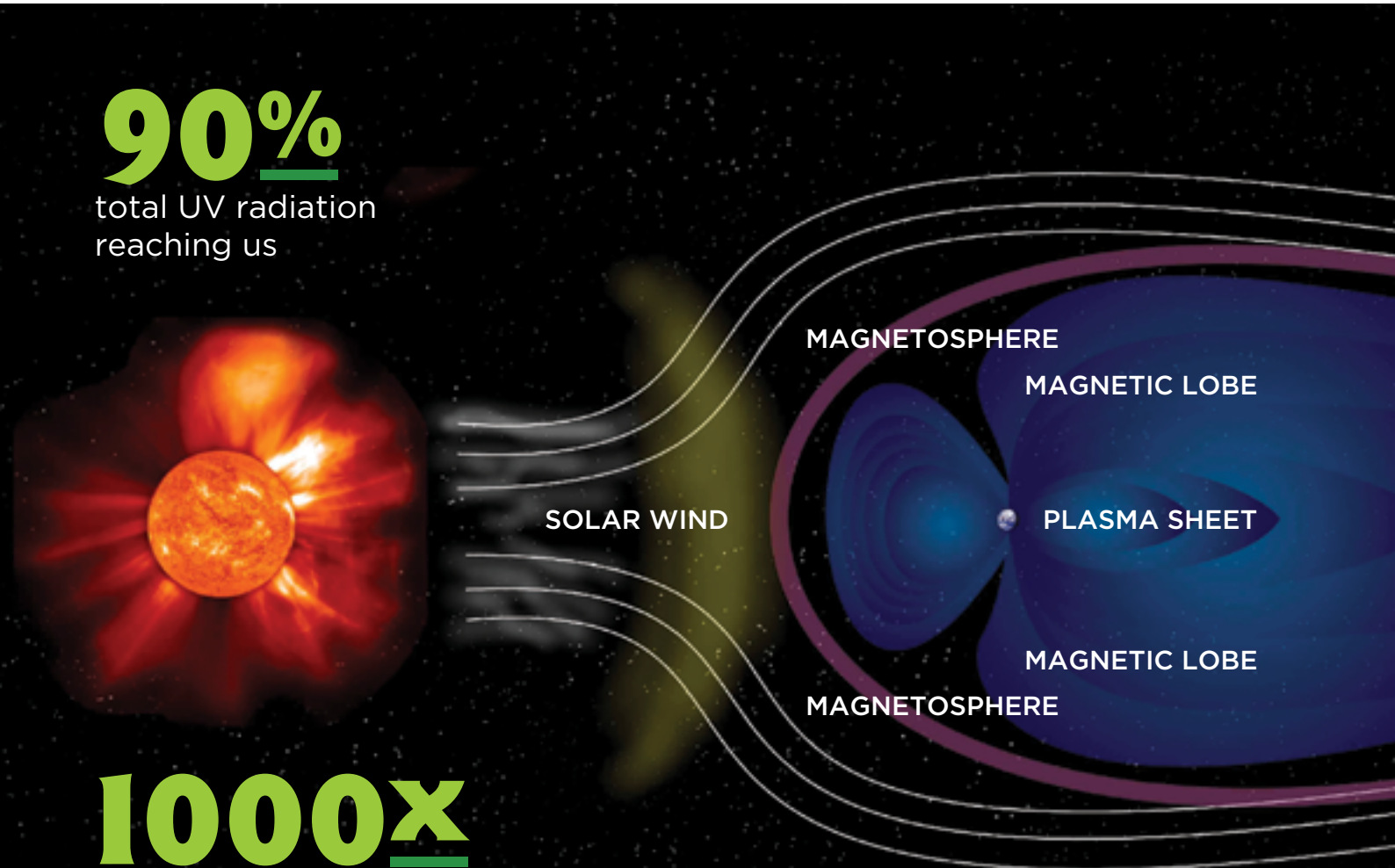
THE UV PROBLEM

The sun is one of the biggest contributors to ageing, and anyone who works outside, or spends a lot of time in the sun, soon finds themselves with tanned – and eventually wrinkling – skin, which isn't ideal for either your health or your looks. But what is sunlight? And what is it really doing to our skin?

THE DAMAGING AND PHOTO-AGING EFFECTS OF THE SUN?

UVA is responsible for the photo-ageing effects of the sun, from wrinkles to skin damage to sun spots. UVA can induce significant DNA damage.

90%
total UV radiation reaching us



1000x
UVB is 1000x more responsible for sunburn than UVA

UV EXPOSURE THE BALANCING ACT

Over-exposure:

- Sunburn
- Skin cancer / melanoma
- Premature skin aging
- Cataracts
- Immune system suppression

Under-exposure:

- Vitamin D deficiency, resulting in;
  - Rickets (soft bones) in children
  - Osteoporosis in over 50's
  - Increased risk of diabetes
  - Increased risk of heart disease

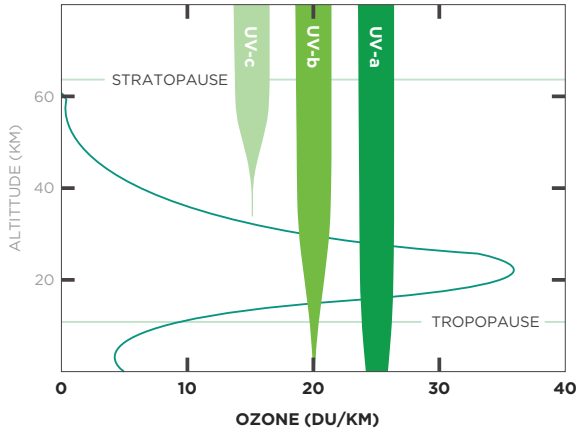
UV radiation on the ground

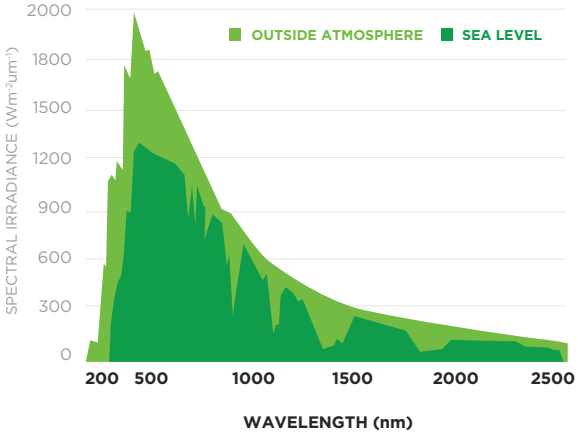
- Made up primarily of UV A & B
- UV C (the most deadly) is almost entirely absorbed by the ozone layer, whilst the ozone layer absorbs most UV B, but hardly any UV A
- UV A responsible for skin aging effects of the sun (wrinkles, skin damage, sun spots)
- UV B responsible for sunburn (1000x more than UVA) and most common cause of skin cancers

Solar radiation spectrum

Sunlight is made up of ultraviolet (UV), visible, and infrared radiation – but it's the UV we need to worry about.

- Made up of Ultraviolet (UV), Visible and Infrared radiation
- UV radiation is known to be the cause of sun tanning (and sunburn)
- UV made up of various frequencies of solar radiation
- UV A & UV B considered to be the most harmful to exposed skin





PROTECT YOURSELF FROM THE INSIDE OUT

Protect yourself from the inside out and still get the benefits of sunshine? Our anti-ageing product helps you protect yourself from skin damage. Protecting you from the sun, we truly believe that the future of anti-ageing will work from the inside out.

ciRos™ BENEFITS:

ciRos offers sun protection that keeps you covered even in times of non-conscious sun exposure, so there's no more getting 'caught out'.

- Protects against sunburn
- Improves skin elasticity following exposure to the sun
- Reduces wrinkle depth following exposure to the sun
- Reduces oxidative stress caused by UV radiation
- And, improves cellular survival rate following UV exposure

Key Ingredients

UV EXPOSURE THE BALANCING ACT

Vit B3 Nicotinamide

Specifically, the amide form of vitamin B3. Antioxidant vitamin that can help to reduce the skin's sensitivity to the sun. May prevent damage from UVA and UVB radiation by protecting the cells from the immunosuppressive effect of UV.

Grape-Seed Extract, Vitis Vinifera

Antioxidant. Grape-seed extract is a rich source of proanthocyanidins (or procyanidins) also called OPCs or PCs. PCs have been found to strengthen the cross-link fibres within the collagen matrix of the skin. GSE also contains stilbenes of which Resveratrol is most well-known.

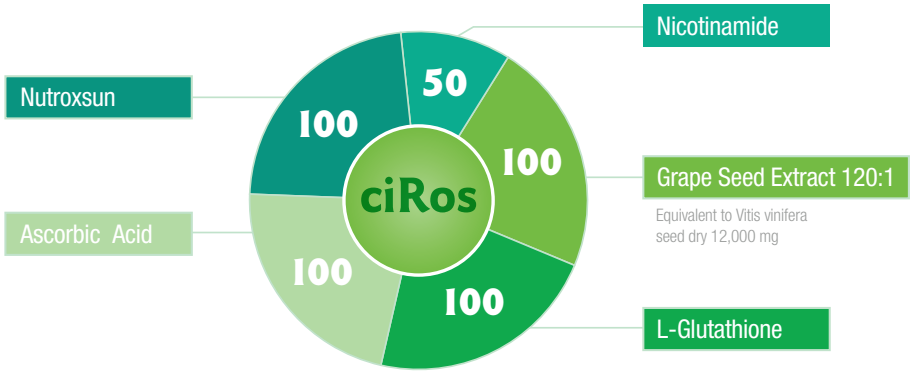
L-Glutathione

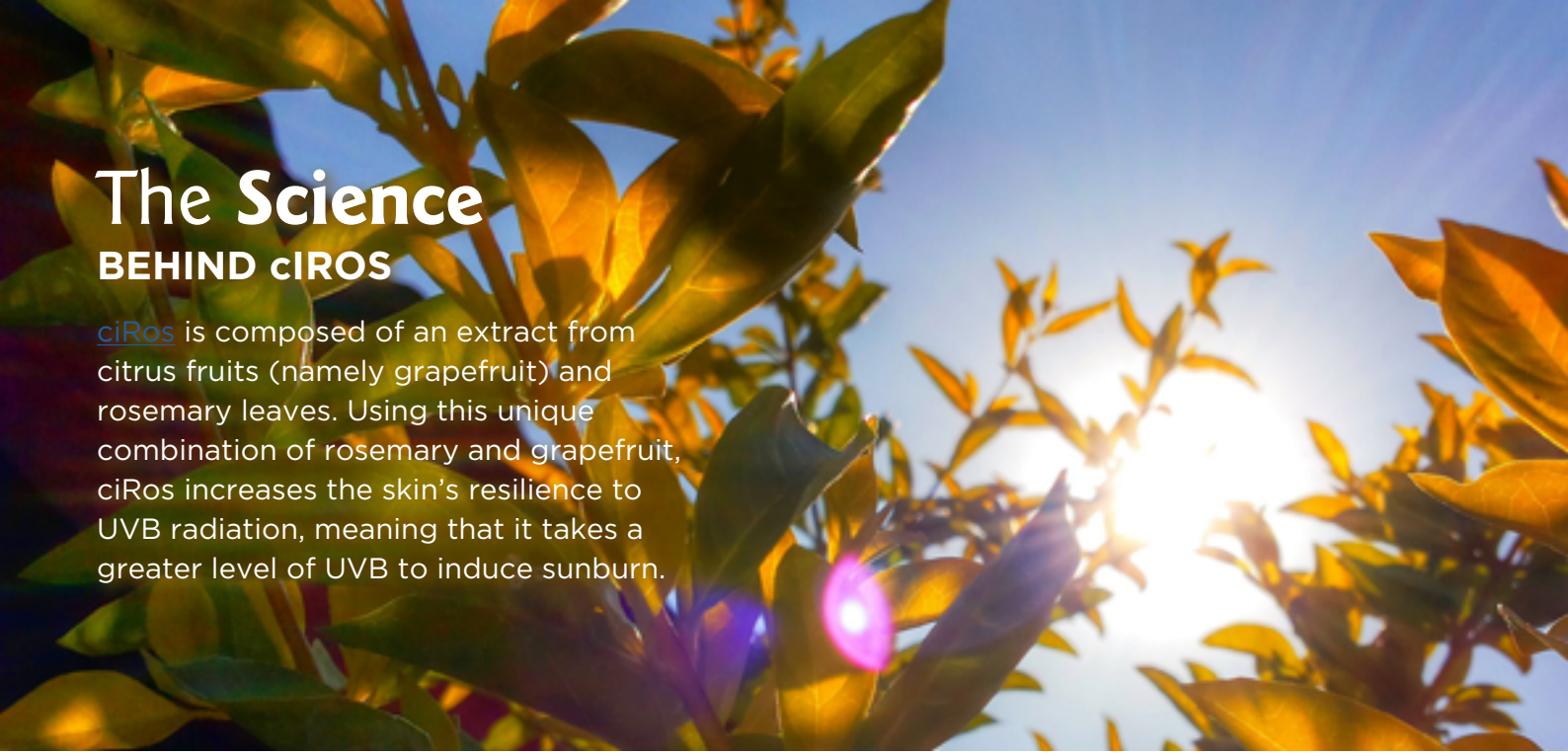
A powerful antioxidant, protects cells from toxins such as pollution, radiation, free radicals that contribute to premature ageing. Concentrated in the liver where it binds heavy metals, eg mercury, arsenic. Levels deplete with ageing.

Ascorbic Acid

Vitamin C is an antioxidant, essential for many biochemical processes in the body. Ascorbic acid is required for formation of healthy collagen in blood vessels, skin, and other body tissues.

KEY INGREDIENT RATIOS:





The Science
BEHIND cIROS

ciRos is composed of an extract from citrus fruits (namely grapefruit) and rosemary leaves. Using this unique combination of rosemary and grapefruit, ciRos increases the skin's resilience to UVB radiation, meaning that it takes a greater level of UVB to induce sunburn.

THE RESEARCH:

Research for the Journal of Photochemistry and Photobiology looked extensively at the protective effects of citrus and rosemary extracts on UV-induced damage. It found that while topical sunscreens may offer proper skin protection, dietary plant compounds such as ciRos may significantly contribute to lifelong protection of skin health.

Separately citrus extract provides skincare protection of:

40%

Rosemary extract provides skincare protection of:

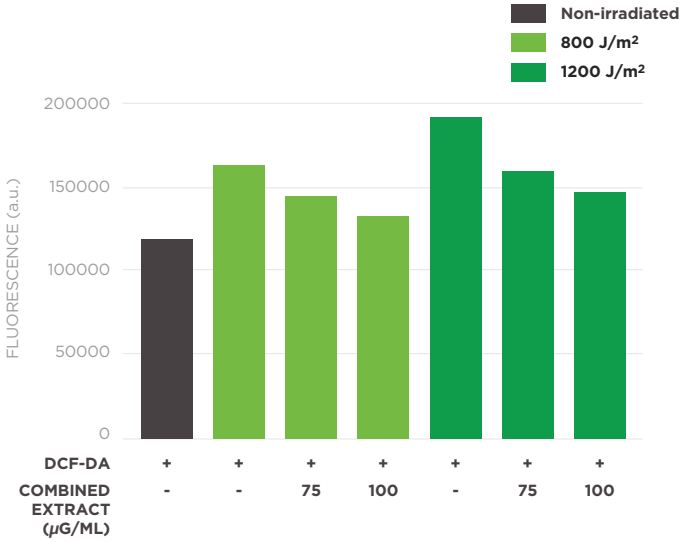
13%

With the combined extract skincare protection achieved:

70%

Key **Research**
BEHIND cIROS

ciRos generation in HaCaT cells after UVB radiation in the absence and in the presence of various concentrations of the combined extract.



Measurement of UV-induced ROS generation using H2DCFDA fluorescent probe. Total fluorescence is expressed as arbitrary units. The data are expressed as the mean ± SD. The black bar indicates the fluorescence signal under basal conditions in the absence of irradiation (0%). ***($p < 0.001$) indicates significant differences compared with irradiated cells at the same UVB dose in the absence of the extract combination.

A. PÈrez-S·nchez et al. / Journal of Photochemistry and Photobiology B: Biology 136 (2014) 12–18

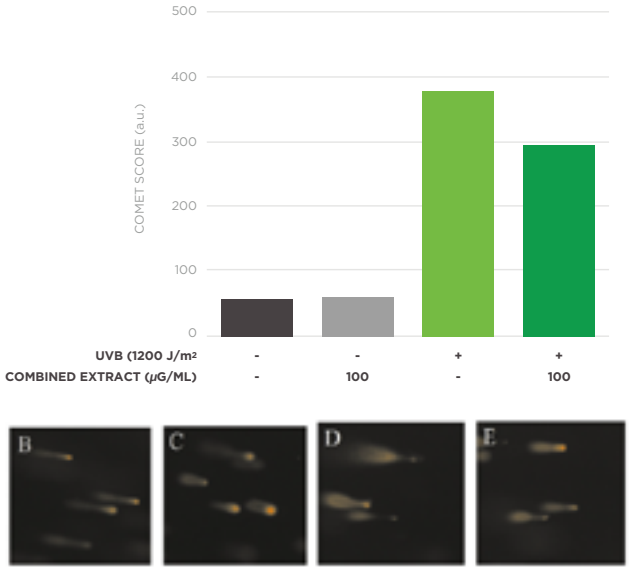


Fig. Rosemary and citrus combination decreases UVB-induced DNA strand break formation in HaCaT cells (A). Keratinocytes were treated with the combination (100 lg/ml) and exposed to UVB (1200 J/m2). To evaluate DNA damage, 50 cells (nuclei) per slide were analyzed. Total damage was expressed in arbitrary units and determined as described in the materials and methods section. Control consisting of non-irradiated HaCaT cells (B), non-irradiated cells in the presence of the combination (100 lg/ml) (C), irradiated cells at 1200 J/m2 (D) and irradiated cells in the presence of the combination (100 lg/ml) at 1200 J/m2 (E). The data are expressed as the mean ± SD. ($p < 0.05$) indicates significant differences compared with irradiated cells in the absence of the combination.

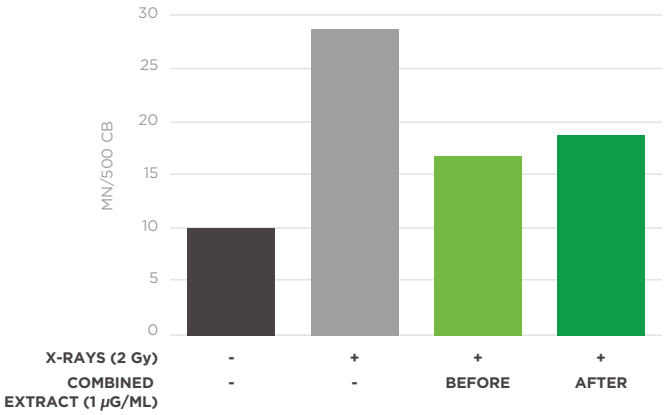


Fig. Influence of rosemary and citrus combination administered before or after X-ray irradiation on the frequency of MN in irradiated and non-irradiated human lymphocytes. The number of MN was expressed in arbitrary units and determined as described in the materials and methods section. The data are expressed as the mean ± SD. ($p < 0.001$) indicates significant differences compared with irradiated and non-treated cells.

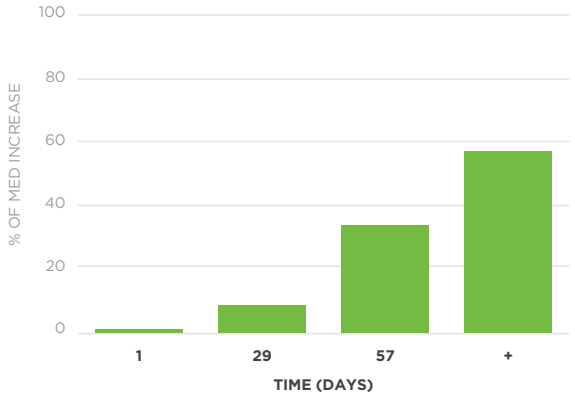


Fig. Evaluation of the average MED of human volunteers measured at days 29, 57 and 85 of receiving the dietary supplement containing the combination compared with the starting value. The data are expressed as the mean ± SD. ($p < 0.05$) and ($p < 0.01$) indicate significant differences compared with the first day.

To study the protective effects of citrus and rosemary extracts and that of their combination, HaCaT cell viability after UVB irradiation (800 or 1200 J/m2 dose) in the presence of the extracts, was determined using the MTT assay.

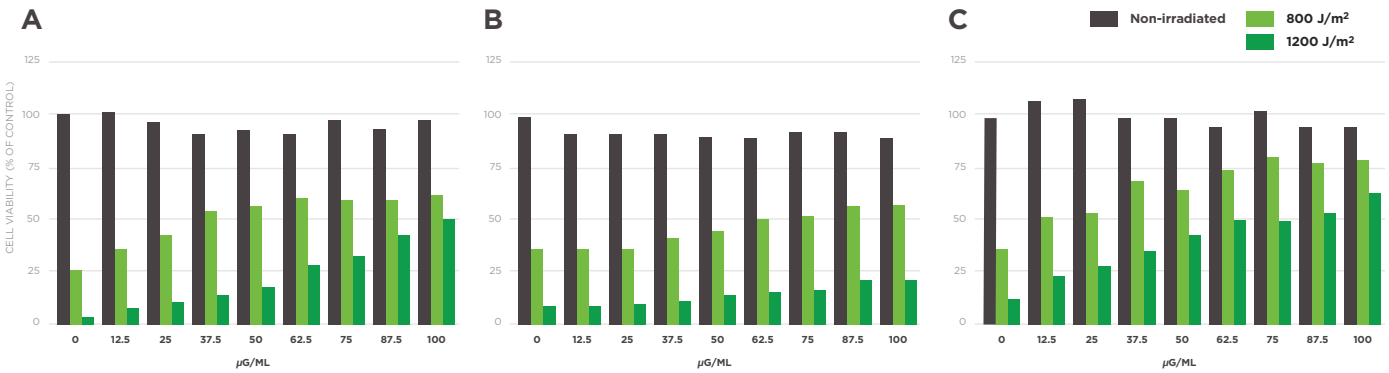


Fig. Survival of human keratinocytes after irradiation with 800 or 1200 J/m2 UVB in the presence of citrus extract (A), rosemary extract (B) or the combination of both (C). The data are expressed as the mean of 6–8 replicates ± SD. ($p < 0.05$), ($p < 0.01$) and ($p < 0.001$) indicate statistically significant differences compared with an irradiated sample in the absence of the extracts.

A Most **Effective**
TREATMENT

What's more, stronger protection was achieved after 12 weeks, suggesting that ongoing use may be the most effective treatment. Long treatments with the supplement can most likely maintain a steady level of protection against the inflammatory reaction that comes after UV radiation.

THE BENEFITS AND EFFECTS

Improved skin response to UVB exposure by nearly 30% following 2 months of use. Reduced wrinkle depth and improved skin elasticity. Reduced lipid peroxidation. Stronger nails, hair and digestion. Access something that makes a real difference in both protecting their body and wellbeing and reducing the negative effects on their skin and cosmetic appearance

FREQUENTLY ASKED QUESTIONS

Q. **How do I use ciRos to protect my skin?**

A. ciRos is supplied in a pack of 30 gelatin capsules to be taken orally with water. Taken daily, ciRos can provide protection your skin from sunburn and the reduce the signs of ageing.

Q. **What are the active ingredients in ciRos?**

A. The magic in ciRos comes from NutroxSunTM, a unique blend of citrus fruit (grapefruit) and the Mediterranean culinary herb, rosemary. While rosemary and grapefruit extracts both exhibited skin photo protective properties, when used together during clinical trials in Europe, the protective properties were significantly amplified – this is known as a 'synergistic' effect. ciRos also contains four different antioxidants carefully selected to protect the skin from oxidative damage – ascorbic acid, grapeseed extract, L-Glutathione, and Nicotinamide.

Q. **What are antioxidants?**

A. These are naturally occurring plant nutrients that are found in brightly coloured fruits and vegetables. Antioxidants help protect the body from oxidative stress by neutralising free radicals, and help the body process toxins encountered in our diet and environment.

Q. **What is L-Glutathione?**

A. Glutathione (GSH) is another powerful antioxidant that protects the cells of the body from toxins such as pollution, radiation and free radicals that contribute to premature ageing. GSH is concentrated in the liver where it binds heavy metals such as mercury and arsenic so these can be safely excreted from the body. Glutathione levels also deplete with ageing. What is L-Glutathione?

Q. **What is Nicotinamide?**

A. Nicotinamide is an activated form of vitamin B3. This antioxidant vitamin can help reduce the skin's sensitivity to the sun and prevent damage from UVA and UVB rays. UVB in particular suppresses the immune system making it less able to identify.