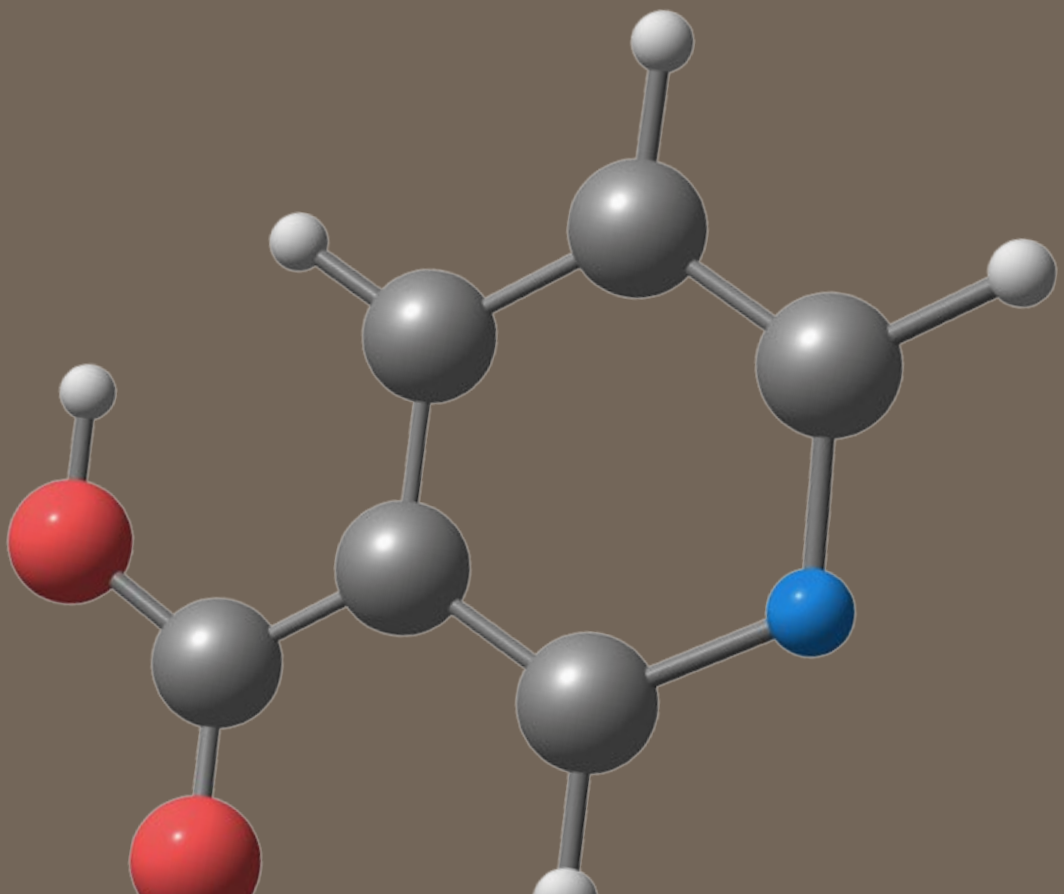
Preventing Skin Cancer from the Inside Out



LifeExtension®
Stay Healthy, Live Better

How the Sun Causes Skin Cancer

As sunlight reaches the earth and ultraviolet radiation strikes human skin, cancer-producing compounds can form and trigger DNA mutations.

Vitamin B3 Protects Against Skin Cancer — from the Inside Out!

In the most compelling and important study to date, researchers found a 23% decreased risk of skin cancers with vitamin B3.

How Vitamin B3 Works

Vitamin B3's most fundamental properties are its role in producing ATP and its ability to protect against ultraviolet-induced immunosuppression.

Why Add Red Oranges and a Fern?

What do red oranges and a tropical fern have to do with the skin? Amplified sun-protecting effects, that's what!

#1

How the Sun Causes Skin Cancer

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So why is excess sun exposure so dangerous?

As sunlight reaches the earth and ultraviolet radiation (UV) strikes human skin, changes characterized by the formation of cancer-producing compounds trigger DNA damage.[1-3]

Our bodies have multiple repair systems that can remove the damaged portions of DNA and restore their normal sequence and function.[4,5] To be effective, these repair systems require a steady and ample supply of cellular energy, or adenosine triphosphate (ATP).

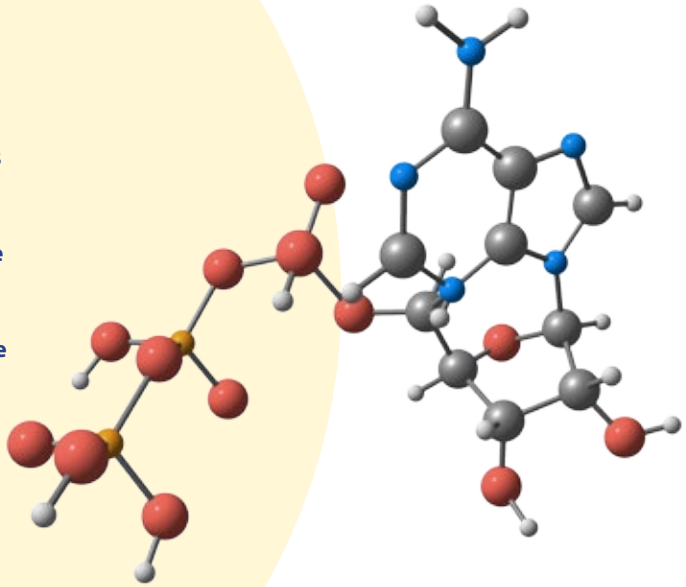
Unfortunately, supplies of ATP tend to decrease with age, a problem compounded by the fact that ultraviolet radiation from excess sun exposure inhibits the production of ATP.[6]

Here's the issue: Low ATP supplies mean inefficient DNA repair.

In other words, ultraviolet-exposed skin cells are not only at increased risk of DNA damage, but they are also impeded in their attempts to repair that damage before it triggers cancerous transformation.[7]

Further complicating matters, even small doses of ultraviolet radiation suppress the immune system in the skin, reducing the body's ability to identify and destroy potentially cancerous cells before they go rogue.[8-10]

The good news: Studies show that promoting rapid DNA repair is an effective means of preventing skin cancer.[10,12]



Our DNA repair systems require a steady and ample supply of adenosine triphosphate (ATP). Unfortunately, both age and excess sun exposure inhibit the production of ATP.

#2

Protecting Against Skin Cancer from the Inside Out

Daily, oral intake of nicotinamide, an inexpensive B vitamin that does not cause skin flushing, is essential to experiencing the reduction in non-melanoma skin cancers.[14]

Vitamin B3 Protects Against Skin Cancer—from the Inside Out!

Vitamin B3, in the nicotinamide form, is safe and effective in preventing the most common, non-melanoma skin cancers.[13]

In the most compelling and important study to date, researchers enrolled 386 healthy subjects with a history of at least two non-melanoma skin cancers in the past five years. Subjects received either twice-daily nicotinamide (500 mg per dose) or a placebo for 12 months.[14]

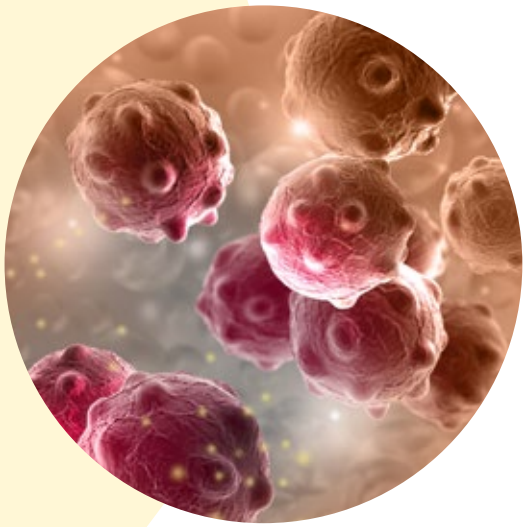
The researchers were stunned at the results.

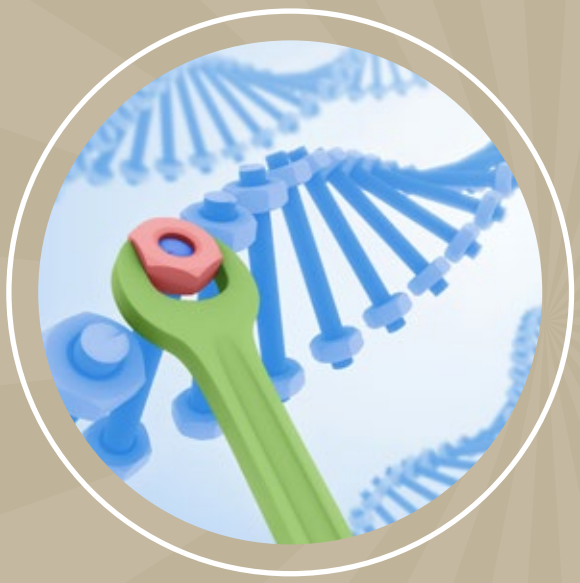
At 12 months, the rate of new non-melanoma skin cancers was significantly reduced — by 23% in supplemented subjects compared to the placebo group.[14]

It is almost unheard of for any single biological intervention to reduce the rate of cancer in people at risk by a figure as high as 23% overall.

But here's a twist: Once supplementation was stopped, no evidence of further benefit was seen.

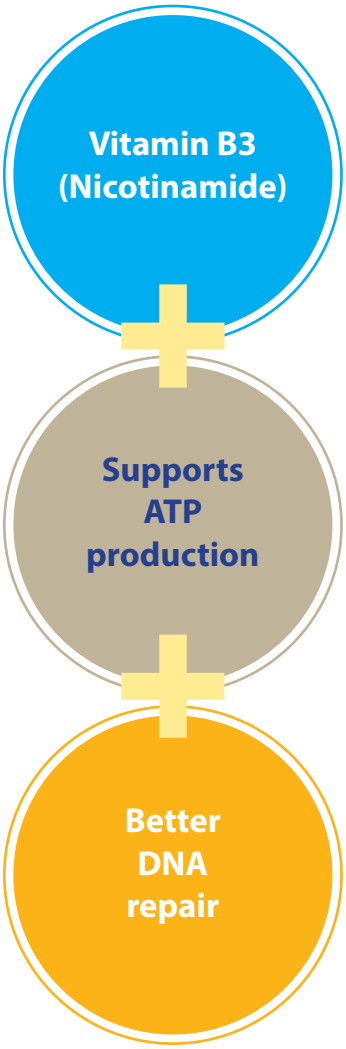
This tells us that daily, oral intake of nicotinamide, an inexpensive B vitamin that does not cause skin flushing, is essential to experience similar results.





#3

How Vitamin B3 Works



How Vitamin B3 Works

What makes vitamin B3, in the form of nicotinamide, so powerful against skin cancer? The answer lies in two of nicotinamide's most fundamental properties:

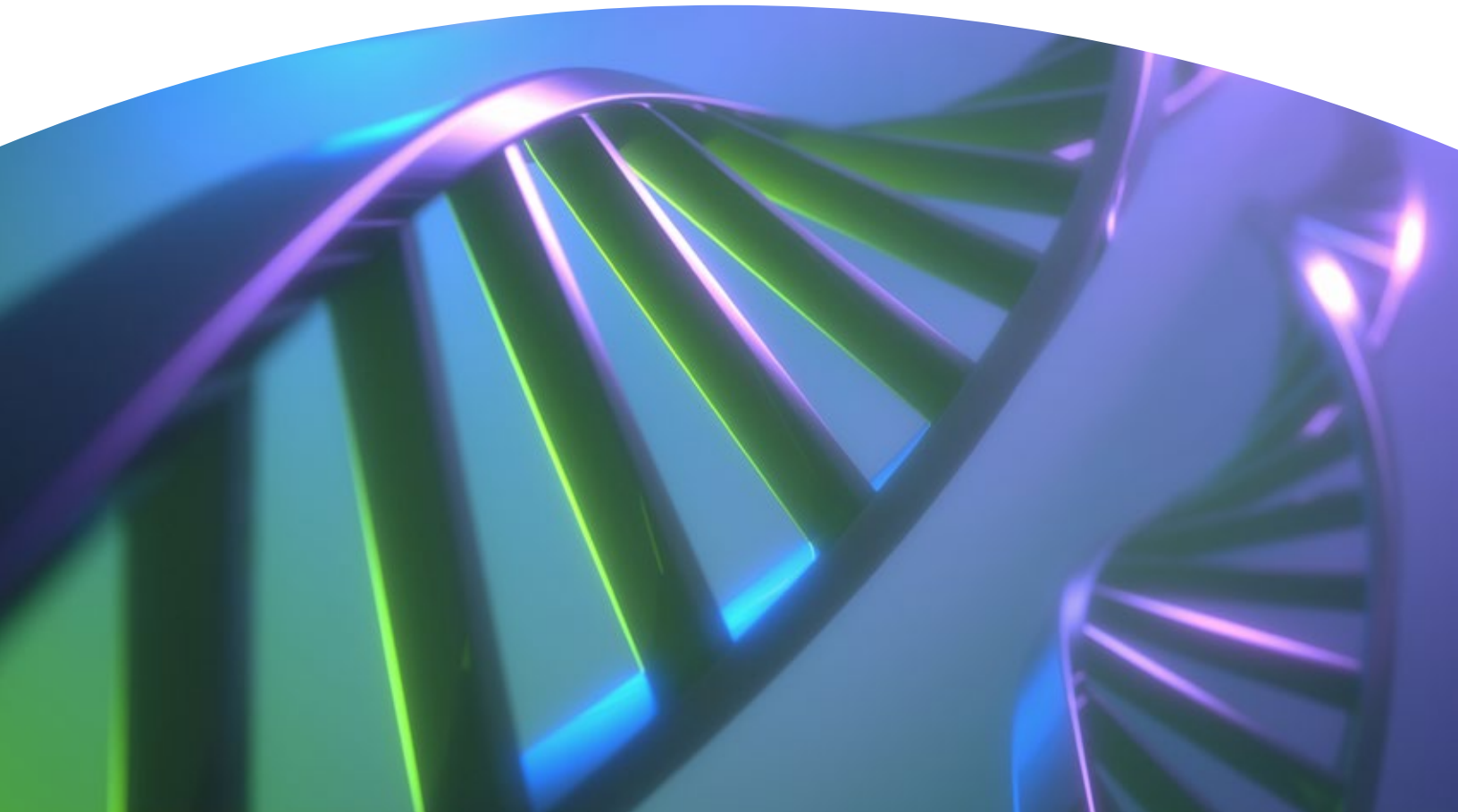
- Its role in producing **cellular energy**.
- Its ability to protect against **ultraviolet-induced immunosuppression**.

The body relies on an ample supply of cellular energy (ATP) to repair and remove the damaged portions of DNA and restore their normal sequence.

By helping the body produce more ATP, nicotinamide helps to ensure continuous and efficient DNA repair mechanisms.

In fact, nicotinamide repairs ultraviolet-induced DNA damage in two ways, making it extremely effective. Cell culture studies have shown that nicotinamide:

- Reduces DNA damage, evidenced by a reduction in markers of damage.[13]
- Increases the number of cells undergoing DNA repair.[7]



#4

Why Add Red Oranges and a Tropical Fern?

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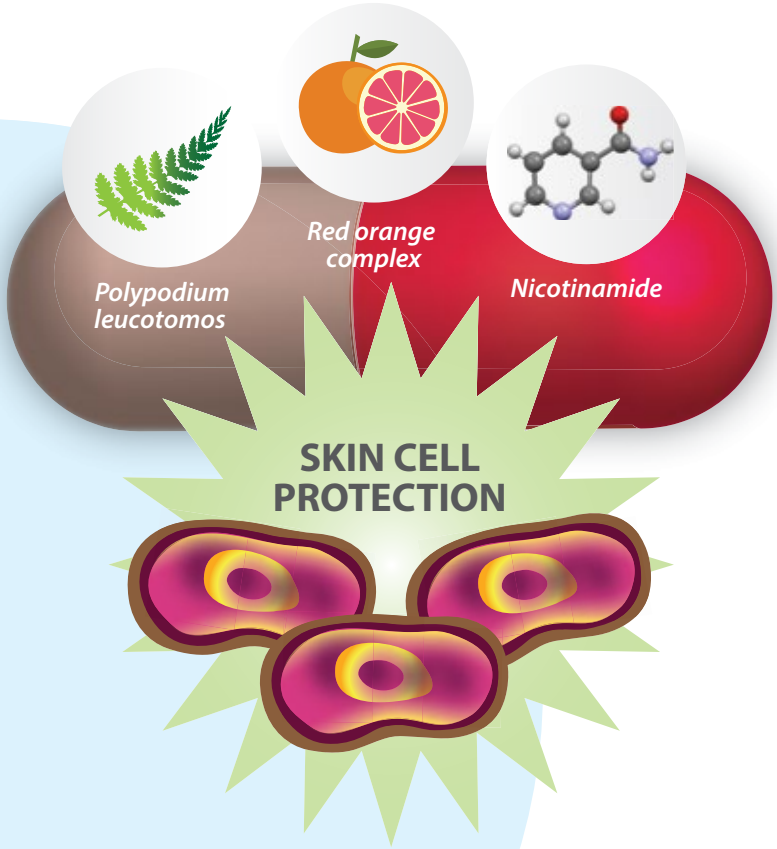
What do red oranges and a tropical fern have to do with the skin?

Amplified sun-protecting effects, that's what!

Red orange extract is a powder obtained via a patented process from three pigmented varieties of red oranges. This extract is rich in nutritious compounds, which have been found to enhance the body's natural ability to protect itself against ultraviolet radiation.[15-18]

The tropical fern is called *Polypodium leucotomos*. It has a long history as a treatment for psoriasis and other inflammatory skin conditions.[19] The extract is rich in polyphenols that potently inhibit oxidative stress and inflammation while protecting skin cells against ultraviolet radiation.[20]



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