

# DNA REPAIR

## Maintaining Performance & Appearance at Any Age

By The Editors

By now, you know that aging and ultimately the breakdown of body performance and appearance is directly related to DNA damage<sup>1</sup>. The unfortunate fact is that as we age, our natural ability to repair damaged DNA declines<sup>2</sup> leading to cellular dysfunction. Herein lies the dilemma, but also the opportunity, to identify natural DNA-repair activators that increase the body's natural DNA repair process to maintain energy, health, and youthful appearance and function.

### DNA AND AGING

Consider these facts: within all human cells is an individual's blueprint for life – your DNA, which also contains information on cell regeneration. Because DNA is constantly being assaulted by free radicals causing DNA damage, cells do not regenerate in perfect form and the performance and appearance of the human body naturally declines. It is estimated that after age 25, our ability to keep up with DNA aging (degradation) declines, as does our performance and body appearance as a result<sup>3</sup>. In fact, every day our DNA sustains an estimated 10,000 molecular lesions per cell and once we are in our mid to late 20s, we have difficulty keeping up with their repair. While the body is naturally equipped to neutralize and dispose of free radicals that cause DNA aging, its antioxidant defences may become overwhelmed by normal metabolic activity, such as exercise, stress and environmental insults such as UV light and pollution. When this happens, the rate at which DNA is attacked outpaces the rate at which it is repaired, causing a decline in the way we perform

and the way we look and feel. This is of particular concern to athletes, bodybuilders and fitness enthusiasts who want to maintain peak performance, function and appearance.

### ANTIOXIDANTS

While popular antioxidants (water-soluble, fat-soluble, vitamin or herbal) can help to protect our DNA by harnessing and neutralizing free radical molecules, they are simply not enough to keep up with the free radical overload. These free-radicals damage DNA, and unfortunately, antioxidants can do nothing to increase the rate of repair of DNA damage once it takes place. So we need another solution.

### THE SCIENCE BEHIND DNA REPAIR

In the early 1990s, Ronald Pero, PhD, and his researchers from the University of Lund in Sweden visited the Ashaninka Indians of the Amazon Rainforest. Here, they observed how the local medicine men (shamans) would make hot water extracts of *Uncaria tomentosa* (aka Cat's Claw) that produced healing results. Dr. Pero and his research team also discovered the presence of carboxy-alkyl-esters (CAEs) in this natural hot water extract. These unique esters work to effectively up-regulate DNA repair enzymes in the human body, leading to cellular DNA repair. In fact, a study published in the *Journal of Phytomedicine* in 2001 showed that a precise level of carboxy-alkyl-esters from alkaloid-free *Uncaria tomentosa* increases the body's natural DNA repair ability by 12% to 15%<sup>4</sup>. By supplementing with these



CAEs, you can effectively reverse DNA aging and improve cellular function and performance. And if you are a serious athlete, fitness enthusiast or bodybuilder DNA-repair activators may just be the edge you need to perform and look your best at any age. **IFM**

### REFERENCES

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