

HAIR ANALYSIS

Have you ever been to a medical doctor with persistent health symptoms, but the doctor can't see anything wrong? **Did you know that Hair Analysis is a [window into your health?](#)**

Benefits of having your hair analyzed:

Essential nutrients are the cornerstone of virtually every major metabolic process that is important for growth, vitality and well being. A good mineral balance will help you achieve optimum nutrition, and can also help alleviate a number of conditions.

If allowed to go unnoticed, mineral deficiencies, imbalances or toxicities can seriously affect your health. With a hair analysis you can identify the source of health related problems in a way that other tests fail to identify.

Some conditions where having a hair analysis test can help:

migraines, depression, diabetes, heart disease, muscle pains, lethargy, dizziness, digestive dysfunction, high blood pressure, osteoporosis, skin and hair problems, thyroid dysfunction, sexual dysfunction, difficulty in concentration, loss of energy.

Hair analysis helps you fight what you cannot see, but you know is there.... Call me to help you on your journey toward optimum and abundant health - Dr. Muriel Grant, DC ND 416 485 3013

Hair analysis - a window to your health

by Geraldine Hinter

<http://www.unisa.edu.au/researcher/issue/2008/april/mainstory.asp>

Hair analysis could soon be the new, easy way to diagnose diseases such as breast cancer at an earlier stage than can be obtained by blood and urine analysis, a UniSA study shows.

Research Fellow at the [Ian Wark Research Institute](#), [Dr Ivan Kempson](#) has been conducting research to find different components in hair that can be accurately measured and any changes monitored to reflect what's happening within our bodies.

"Because hair incorporates nutrients and other substances obtained primarily from the blood supply, hair analysis provides an alternative means of measuring the body's nutrition and health status, as well as exposure to toxins and pollutants," Dr Kempson said.

"Copper and zinc play important roles in the formation, growth and health of organs and skin and hair. Both of these metals are very important for the body's metabolism, while cell division and protein metabolism rely on zinc," he said.

Unlike many other metals in hair that are prone to contamination or other internal and external influences, Dr Kempson's research shows that concentrations of copper and zinc are stable and evenly distributed along the length of the hair above and below the scalp. They are securely bound within the hair and are not lost upon exposure to the external environment.

"Changes in the concentrations of copper and zinc in the hair provide a window into our health, making them potentially reliable indicators for some disease states," Dr Kempson said.

Dr Kempson has been conducting research using time-of-flight secondary-ion mass spectrometry (ToF-SIMS) and synchrotron techniques to look at concentrations of copper and zinc in hair. He points out that in a group of people suffering from breast cancer, it was found that they had reduced levels of zinc along with increased concentrations of copper in the blood because of the cancer.

This research result is confirmed in a 2005 study of a group of people with cancer and a group with a negative diagnosis, where the zinc and copper ratio was particularly important in discriminating between the two groups.

"Breast cancer not only influences the copper and zinc concentrations in the hair, but the structure of the hair changes to an unhealthy state because hair growth is adversely affected by the disease," Dr Kempson said.

Changes in blood elemental concentrations within hair may explain the alterations in hair structure relating to breast cancer described in a 2005 research paper published in the *International Journal of Cancer*, which shows a correlation between an altered pattern of the hair structure and the presence of cancer.

"Through our fundamental research we are creating a basis of knowledge for further studies that combine hair analysis with other research techniques for improved diagnosis of conditions such as autism, dementia and mental retardation," Dr Kempson said.
