#### **TESTING PROCEDURE**

In order for an accurate test to be performed on a sample of your hair, a proper sample must be sent in.

Hair that has been dyed, bleached or permed will not provide accurate results.

Therefore, we prefer you wait for new growth to appear before taking a sample of hair.

For short hair, thinning shears can be used to cut enough hair in the lower back region of the head to weigh 0.5 grams.

With long hair, the best way is to cut small samples from several locations in the lower back region of the head.

The 1 inch closest to the head will be used as the sample and the remaining hair is thrown away.

(Note: Pubic hair is not the best in testing of the nutrient minerals.)

Our clinic will receive the results
7-10 business days after they have received the kit.

#### REPORT FINDINGS

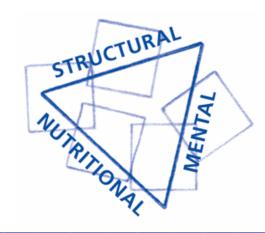
The report that you will receive will have several important parts to it.

- Your test level compared to the normal range will be charted on each nutrient mineral and toxic metal.
- A bar graph will also be displayed on the nutrient minerals for easier reading.
- The ratios of your hair minerals will be compared to the ideal range.
- The significance of each ratio is discussed.
- Suggestions will be made on adjusting your diet, supplements and lifestyle to bring your minerals into optimum range.
- A general report on minerals in nutrition is included as a reference for greater understanding of your results.

11/2013

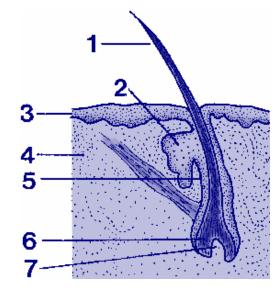
#### **Sunnyside Health Center**

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# TRACE MINERAL ANALYSIS (TMA)

What can it tell you about your health?



## THE VALUE OF THE TRACE MINERAL ANALYSIS

Some patients may be asked to have a trace mineral analysis.

## What is the purpose of this specific test?

Just as the rings on a tree tell the past history of health and disease, the evaluation of the hair is a historical review of your general health involving stored minerals.

This information is used in conjunction with blood and urine tests to detect *imbalances*, *insufficiencies* and toxins.

Hair minerals levels are measurements of minerals that have been bound into the hair shaft over a period of time and correlate more closely to tissue levels.

Whereas serum mineral levels are measurements of the minerals that are circulating at the moment the sample is taken.

Blood serum will maintain its mineral levels at the expense of other organs in the body because of its homeostatic mechanism.

Because of this, deficiencies or excesses will be found in the hair first—some-times years before the serum levels become abnormal.

As an example, your blood tests may show adequate calcium content, but your body may be taking it out of your bones, teeth, and hair to maintain a minimum amount of calcium in the blood.

Your doctor will be able to determine the cause of imbalances by studying both sets of tests.

### ESSENTIAL NUTRIENT MINERALS

Our bodies contain over 60 different minerals, 24 of which are considered essential to human health.

While minerals comprise only 4 percent of the average body weight and 0.3 percent of our total nutrient intake, we would quickly die without them.

In fact we are just as likely to experience health problems from mineral deficiencies as vitamin deficiencies.

Calcium, phosphorus, potassium, sulfur, sodium, chlorine, and magnesium are termed major minerals because our bodies need at least 100 mg of each per day. Minerals needed in amounts less than 100 mg per day are called trace minerals. These can be difficult to get from food because of the depleted soil.

## The ratio of minerals are equally important.

Minerals are deposited in the hair as a result of the quality of *diet, genetics, enzyme* and hormone systems, and the aging process.

The ratios of the nutrient minerals to one another suggests what hormonal or stress factors may be causing abnormal levels.

#### **TOXIC METALS**

Some of the most important information that comes from a hair analysis is to identify the presence and amount of toxic metals such as:

- ~ aluminum ~ cadmium
- ~ arsenic ~ tin
- ~ lead ~ mercury
- ~ nickel ~ uranium

When any of the sixteen that are tested are high, there usually are severe health symptoms.

The doctor will recommend an extensive detoxification regime that will help remove the toxic metal.