

# Osteoporosis Testing Sequence

## First Tier Testing

N-Telopeptide ...Urine test to assess and measure osteoclastic activity  
(Professional Co-op Services ~ 866-999-4041~ Cost \$49.00)

## Basic Protocol

Osteo-B II™	2 tablets TID
Mg-Zyme™	3 at bedtime
Optimal EFAs Caps®	2 capsules TID
Bio-D-Mulsion Forte®	3 drops daily
Bio-K-Forte Caps®	1 capsule BID

**Repeat the N-telopeptide to make sure dietary and supplement changes are affecting bone status every 30-45 days.** The following tests are also valuable and supplementation should be added to the basic protocol based on what is found.

## Blood Chemistry Panel - Look for:

### *Inflammation by testing:*

Homocysteine  
CRP  
Fibrinogen  
Sedimentation Rate

### *Dysglycemia by testing or evaluating:*

Balancing Body Chemistry Health Assessment form (Category III Section A)  
or use Nutri-Q online questionnaire (Part II Section 7)

Glucose  
HbA1c  
Fasting insulin over 10 should be addressed.  
Elevated Triglycerides

### *Mineral Levels by looking at:*

RBC magnesium,  
Zinc  
Low alkaline phosphorous test (under 60) possible zinc need  
Zinc taste test  
Calcium /Phosphorous ratio should be 2.5/1

### *Nutrient Levels especially Vitamin D*

use the 25 (OH ) Vitamin D...goal is 50-100 ng /ml

### *Kidney Function by looking at:*

Creatinine

*Digestion by checking:*

Balancing Body Chemistry Health Assessment form (Category I Section A)  
or use Nutri-Q online questionnaire (Part II Section 1).

Serum Globulin over 2.8 under 2.2 is a need for HCL especially with low zinc  
and symptoms from above questionnaires.

Serum Gastrin levels less than 45 with symptoms probable HCL need  
pH - urine & saliva which reflect blood pH.

**Second Tier Testing... If the above protocols and testing are not affecting  
the osteoclastic function, consider the following tests and observations**

*Check Adrenal Function using blood saliva or urine, Balance DHEA levels*

**Hormone Panels:**

Cortisol

DHEA

Testosterone

Estrogen

Progesterone

Parathyroid Hormone – PTH

**How to Maintain Healthy Bones:**

Maintain a neutral pH

Implement a resistance type exercise program

Avoid or minimize milk

Increase green leafy vegetables

Adequate mineral synergist

Magnesium is essential to balance pH and for bone health

EFAs particularly EPA/DHA are essential in prevention/therapy for bone  
health

**General Notes of Interest: Diabetes causes an acidic pH which will cause the  
body to rob buffering agents, i.e., minerals from the bones.**

**↑ inflammation = ↑ bone loss**

TH1- TNF $\alpha$  & IL2- GI immune wind up -

Leaky gut, dysbiosis, parasites = ↑GALT = ↑bone loss

TH2-IL6-produces antibodies

**Food allergies** promote bone loss

**Stress response**, emotional, chemical or physical = ↑ HPA axis = ↑bone loss

**ANY** glucocorticoid therapy will affect bone loss, even creams. Isocort and  
Cortef are forms of cortisol and can cause bone loss even on low doses.