Tissue Mineral Test (Lowenberg Test)

One of the strongest indicators of tissue calcium deficiency is muscle cramping at rest. This is a means for checking the tissue calcium stores of an individual suspected to have a tissue calcium deficiency. If a deficiency is confirmed, various forms of calcium and its co-factors will be tested orally in order to determine which specific forms of nutrients are needed to improve tissue calcium status.

Caution: Do not use this test if peripheral vascular disease is present or suspected. In elderly or frail patients, do not exceed 180.

Procedure

Place a standard blood pressure cuff around the patient's calf muscle. Instruct the patient to let you know when they feel the ONSET of cramping pain.

A muscle withstanding 200 millimeters of mercury is considered to be of sufficient calcium stores. A patient who has cramping prior to 200 mmHg is considered to be deficient in tissue calcium. The optimal tissue calcium level is considered to be 240 mmHG or more.

If a deficiency is indicated, have the patient taste the various forms of calcium (30 seconds, ideally) until the pain threshold is appropriately increased. In many cases, a co-factor may have to be used in addition to a calcium source.

Calcium and Mineral Sources

___ Ca/Mg Zyme	___ Osteo-B Plus	___ Mg-Zyme
___ Ca/Mg Plus	___ Multi Mins	___ Super Phosphozyme
___Bio CMP	___ Ca-Zyme	___ K-Zyme

Co-Factors

Digestion
___ Hydro-Zyme
___ HCL-Plus
___ Betaine Plus HP

Essential Fatty Acids
___ Flax Seed Oil Caps
___ Black Currant Seed Oil
___ Biomega-3
___ Mixed EFAs

Hormonal
___ Equi-Fem
___ Cytozyme-O
___ Cytozyme-Orchic
___ Cytozyme-M
___ Cytozyme-F
___ Neonatal Multi-Gland
___ Cytozyme-AD
___ Cytozyme-PT/HPT

___ Thyrostim
___ GTA
___ Meda Stim

Other Factors
___ Bio-D-Mulsion
___ Chlorocaps
___ Bio-Ae-Mulsion
___ Liquid Iodine

Note: The Majority of people will respond to calcium and/or the co-factors listed above. However, if necessary, consider the following:

Kidneys
___ Cytozyme-KD
___ Renal Plus
___ Argizyme

Oxygenation
___ Ginko Biloba
___ OOrganik-15
___ BioProtect

Hydration
___ Water
___ Water & Electrolytes

Vitamin E
___ E-Mulsion 200
___ Bio-E-Mulsion Forte