



## The Bone Health Panel



**The Diagnos-Techs™ Bone Health Panel** uses convenient, non-invasive testing of your saliva and urine to give you valuable information about your bone health. As you age, fluctuating levels of estrogen, progesterone, testosterone, DHEA, cortisol, and FSH may affect your bone density. Information about your levels of these hormones can be used as part of a comprehensive program to evaluate and monitor the health of your bones and your risk for osteoporosis. The Bone Health Panel also measures the level of deoxypyridinoline, or Pylilinks-D, from a urine sample. Deoxypyridinoline is a specific marker of bone breakdown, which can be used to screen for excess bone loss in many different conditions, and is useful for monitoring the effectiveness of osteoporosis treatments.

### The Bone Health Panel can help determine your risk for osteoporosis

Your risk for osteoporosis increases with:

- Age
- Sedentary lifestyle
- Previous fracture
- Smoking
- Alcohol consumption
- Family history of osteoporosis or hip fracture
- Long-term glucocorticoid or steroid therapy
- Low body weight
- Onset of menopause

### It is important to be screened for osteoporosis if you have:

- Diabetes (Type 1 or 2)
- Thyroid disease
- Kidney disease
- Inflammatory bowel disease (IBD)
- Celiac disease
- Rheumatoid arthritis
- Dementia
- Low vitamin D levels
- Cystic fibrosis
- Premature ovarian failure or amenorrhea
- History of an eating disorder

### Bone Density

Bone density is influenced by many factors such as genetics, vitamin D status, hormone levels, diet, and lifestyle. When bone density decreases to a level below normal, it is referred to as osteopenia. If bone thinning continues to the point where the bone is at risk for breaking easily, it is referred to as osteoporosis. Early detection and intervention are very important for minimizing loss of bone density and preventing fractures.

Although the standard procedure for evaluating bone health involves measuring specific biomarkers in the blood in combination with radiographic tests, the Bone Health Panel serves as a non-invasive and cost-effective way to screen for and monitor bone loss that does not involve radiation or blood draws.

### Why is it important to prevent fractures?

- Worldwide, one in three women and one in five men over 50 will experience an osteoporotic fracture
- People who suffer from a hip fracture have a 20% or greater risk of dying during the following year
- One in three adults who lived independently before hip fracture remain in a nursing home for at least a year after injury
- A 50-year-old woman has a 2.8% risk of death related to hip fracture during her remaining lifetime, equivalent to her risk of death from breast cancer and four times higher than that from endometrial cancer \*

\* All facts and statistics are based on research studies cited by the International Osteoporosis Foundation [www.iofbonehealth.org/facts-statistics](http://www.iofbonehealth.org/facts-statistics)

## Convenient, Simple, Accurate

- Collection is non-invasive and painless
- Saliva and urine samples can be conveniently collected in your home
- Pylrilinks-D in urine is a sensitive indicator of bone loss
- In saliva, the most active (free) form of each hormone is measured

## Your doctor may consider the Bone Health Panel (BHP) for:

- Preliminary screening if you are at high risk for osteoporosis
- Therapeutic monitoring during and after treatment for bone loss
- Hormone replacement therapy follow-up
- Monitoring conditions such as Paget's disease, hyperparathyroidism, and other bone-related diseases

## Ask your doctor about your bone health if you:

- Are 40 years of age or older
- Have a sedentary lifestyle
- Smoke cigarettes
- Have a family history of osteoporosis or hip fractures
- Are approaching or recently entered menopause
- Have been diagnosed with diabetes, thyroid disease, kidney disease, or irritable bowel disease (IBD)

## Why saliva instead of blood?

For hormones to be active, they have to exist in their free state. In blood, most hormones are bound to proteins or red blood cells and are therefore inactive. It can be difficult to determine how much of a hormone measured in serum or blood is free and actually available to your cells. In saliva, however, hormones exist in their free state and are therefore bioavailable.

## What to Expect

Your healthcare provider will give you a test kit containing the supplies you need to collect your samples. Complete instructions regarding sample collection (along with foods, supplements, and activities to avoid during the test period) are included with your kit. You will need to refrigerate your samples until all collections are complete. Then you will package your samples in the box provided, affix the pre-paid mailing label included with your kit (domestic only), and ship the completed kit from your nearest UPS location.



Your healthcare provider will receive your results in approximately 1-2 weeks. This information can then be used to create a customized treatment plan and to determine the next steps in working toward your health goals.

## Ask your physician about additional test panels available from Diagnos-Techs:



Adrenal Stress Index Panel



Bone Health Panel



Cycling Female Hormone Panels



Peri and Post Menopause Hormone Panels



Male Hormone Panel



Food Allergy (Sensitivity) Panel



Gastrointestinal Health Panels

For additional patient information, please visit our website at [www.diagnostechs.com](http://www.diagnostechs.com)



19110 66<sup>th</sup> Avenue South, Building G  
Kent, Washington 98032