



Bone Health Panel



The DiagnosTechs 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. These hormones can be measured to help 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. Pylilinks-D is a specific marker of bone breakdown, which is used to screen for excess bone loss and for monitoring the effectiveness of osteoporosis treatments.

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 higher risk for breaking, 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 noninvasive 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 a 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

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

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



Our Bone Health Panel can help determine if you are at higher risk for osteoporosis. Ask your doctor if a Bone Health Panel might be appropriate for you.

Your risk for osteoporosis increases if you:

- Are 40 years of age or older
- Have a sedentary lifestyle
- Smoke cigarettes or consume alcohol
- Have previous fractures or a family history of osteoporosis or hip fractures
- Are approaching or recently entered menopause
- Have low body weight
- Take glucocorticoid or steroid therapy long-term
- Have been diagnosed with diabetes, thyroid disease, kidney disease, or inflammatory bowel disease (IBD)

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

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 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 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 location.

In approximately 1-2 weeks, your healthcare provider will receive your results and can then begin creating a customized plan to help you meet your health goals.

Convenient, Simple, Accurate

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

Ask your physician about additional test panels available from DiagnosTechs:

-  **ASI** Adrenal Stress Index Panel
-  **BHP** Bone Health Panel
-  **CAL** Calprotectin
-  **FHP** Cycling Female Hormone Panels
-  **FP** Food Panel
-  **GI** Gastrointestinal Health Panels
-  **MHP** Male Hormone Panels
-  **PHP** Peri- & Postmenopause Panels

For additional patient information, please visit our website at diagnostechs.com