

## Patient Information

# Bone Turnover Test

Osteoporosis literally means 'porous bones' - bones that are filled with tiny holes. In bones affected with osteoporosis, new bone formation does not keep up with bone loss (this is called bone turnover), which causes the bones to become more brittle with age. As bone is lost, the skeleton continues to have a normal composition but it becomes porous, hyper-mineralised and more fragile and it is easier for the bones to break.

While a bone density scan is the gold standard of diagnosing established osteoporosis, identifying your current rate of bone loss is the key to preventative treatment. If you make positive changes to your diet and lifestyle to improve bone health, an improvement in bone turnover is measurable by repeated test. However, you might have to wait two years for a repeat bone density scan, which again is just another 'snap shot' of your bone density and will not tell you whether your changes have improved your current rate of bone loss.

### **How does the test work?**

The bone turnover test provides a measure of the excretion of N-telopeptide (NTx), a very specific marker of bone metabolism. Urinary levels of NTx correlate with the rate of bone loss, and when there are increased amounts of NTx in the urine there is an increased rate of bone destruction.

The report that you will receive will show your NTx/Creatinine ratio and a normal range. If your result is higher than the normal range, you are currently losing more bone than would be expected. The higher the result, the more bone you are losing and thus the greater likelihood of developing osteoporosis.

### **Who should take this test?**

Anyone concerned about their bone health, women approaching the menopause for preventative change, women who are going through or have gone through the menopause for monitoring of bone degradation at this time and people who have been diagnosed with osteopenia or osteoporosis.

### **Test Procedure**

- Your nutritionist will provide you with a test pack and a courier pack. Please pay the clinic directly for this test prior to sending the sample.
- This test is a urine test. Only a small urine sample is required; the second morning sample is collected.
- Please follow the instructions for the courier pack provided with the kit. Please do not send samples on a Thursday or Friday to the UK to prevent delivery at the weekend.
- The test results will be returned to your nutritionist within 2-3 weeks of receipt of the sample. Test results will be interpreted by your nutritionist and a protocol tailored accordingly.