Brain Natriuretic Peptide (BNP)

Although first described in brain research, brain natriuretic peptide (*BNP*) is a cardiac heart hormone. It is measured in blood specimens as a biomarker for ventricular dysfunction. Heart muscle cells produce pro-BNP upon ventricular stretch due to pressure or volume overload. Pro-BNP is cut into two parts: an inactive portion called NT-proBNP and a smaller portion called BNP, which is biologically active. BNP has a short half-life while NT-proBNP is more stable, making it easier to measure in stored blood specimens. Research studies have shown that, even in the absence of overt heart failure, modest elevations of BNP have prognostic value for future cardiovascular events and mortality. While used mainly in the assessment of left ventricular function, these compounds are useful in the evaluation of other heart diseases, such as right ventricular function, pulmonary hypertension, atrial fibrillation, and CAD. With treatment, these compounds drop. They may or may not return to normal. A rising BNP implies a worsening condition. Use of BNP and NT-proBNP is growing in clinical medicine. Measurement in emergency situations helps the clinician determine whether a patient's dyspnea is due to heart failure or due to another cause (such as lung disease). Women tend to have a wider reference range compared to men. "Normal" levels vary among testing laboratories, depending on the reagents used. Reference ranges drift up with age, probably as a reflection of declining heart health as part of the aging process. Thus, the reference range is not necessarily true "normal" range or evidence of a healthy heart. Healthy hearts have very low values for BNP and NT-proBNP.

If your client has an abnormal BNP or NT-proNBP, please answer the following:

1. **What is the cardiac diagnosis?**_____

2. **Please list date when first diagnosed:** _____

3. Is your client on medications? If yes, please give details

_____

4. What are the following measurements?
BNP _____ or NT-proBNP _____
Echocardiogram -- send the report

5. Please check if your client has had any of the following:
coronary artery disease _____
cardiomyopathy _____

valve disease _____

systolic or diastolic dysfunction_____

hypertensive heart disease _____

pulmonary hypertension _____

arrhythmia _____

congenital heart disease _____

left ventricular hypertrophy_____

6. Does your client have any other major health problems (ex: cancer, etc.)? If yes, please give details _____

7. Has your client smoke cigarettes or other tobacco use in the last 5 years? If yes, please give details _____