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Normal Hormone Levels

What are we to understand from the Laboratory's "Normal Levels"?

What is Normal?

When I first began to prescribe bioidentical hormones, I decided to measure patients' levels both before and during therapy. Ordering serum levels from the commercial laboratories, I was immediately struck by the wide "normal" ranges on the returned reports. I called the chemists in charge of the labs. I wanted to know how their ranges were decided upon. In general, the laboratory ran the tests on a group of patients. "Normal" was defined as those values that stood within two standard deviations on each side of the mean. Sometimes, sub groups were broken out. As an example, DHEA and DHEA-S are different for men and women and both decline with age. The normal ranges are defined separately for each sex and decade of life.

Even so, "normal" does not necessarily mean healthy. When I was in medical school in the 1960s, normal systolic blood pressure was 100+the patient's age. **Although this may have been "normal" or at least common and usual, it wasn't healthy**. When blood pressure was redefined as a healthy range, independent of age, all of a sudden, millions of Americans went from being healthy, or at least "normal", to sick. Much the same thing has happened with cholesterol measurement. Medical research, the companies that make lipid-lowering drugs, and the physicians that lecture for them, have pushed "normal" LDL cholesterol lower and lower. It used to be at least 130 and was age dependent. Now it sits below 100 for everyone.

I asked the labs if they could tell me what the mean and median numbers were for each value, along with the distribution curve. I wanted to see if healthy patients were clustered around certain values and if outliers were skewed out at one end or another. I was told that this data was not available. I realized that I was going to have to do a lot of measurements and find out what patients looked and felt like at various levels.

Let us now move on to:

Interpreting Normal Female Hormone Levels, Working with the Lab's "Normal Levels"