

## **HORMONES AND HORMONE DISRUPTION**

### **DEFINITION**

Hormones are the body's biochemical messenger system. Tiny amounts of hormones are released directly into the bloodstream and exert profound effects on body processes.

### **AMOUNTS**

Hormones are measured in:

- **Nanograms** (parts per billion). "One part per billion is like putting a pinch of salt into 10 tons of potato chips."
- **Picograms** (parts per trillion). "This is like placing one drop of water into a six-mile-long train with 660 tank cars!" \*

*Hundreds of hormones and hormone-like biochemicals act throughout the body.*

### **FUNCTION**

Hormones are a main part of the body's control system. They are involved in coordinating and integrating the body, as well as mind and emotions.

Hormones govern, among other processes:

1. Metabolism – the building up and breaking down of the body, and the extraction of energy from food
2. Development and reproduction
3. Mental, emotional and behavioral processes
4. Growth, repair and maintenance
5. Many aspects of fetal development, including the developing brain and nervous system

### **HISTORY**

- ◆ Until recently, the only hormones the human body was exposed to were endogenously made, and plant or phytohormones.
- ◆ In the last 60 years, 87,000 man-made chemicals have been introduced into the food and water supply and environment.
- ◆ Dozens of these chemicals are routinely found in human tissues, the blood stream and even human breast milk.

\*Berkson, D. Lindsey, *Hormone Deception*, p9

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### CONSEQUENCES

- ◆ Many, many of these chemicals are now recognized as hormone disruptors.
- ◆ How many? No one knows for sure.
- ◆ How harmful are they to pregnant women, children and adults? No one knows for sure.
- ◆ How do they affect the intelligence, behavior and health of our offspring? No one knows for sure. What is the cumulative effect of many pollutants building up in the body over time? No one knows for sure.
- ◆ What we do know is that the research started in the mid-1990s is showing that hormone disruptors have a profoundly negative effect in all the situations being studied so far.
- ◆ For certain, they are connected to the epidemic of FM/CFS, to the infertility epidemic, to behavior and psychological problems, to the estrogen dominance epidemic, and too many if not most cancers.
- ◆ Since politics and economics are involved, it may be some time before steps are taken to remove these contaminants and prevent more from being introduced.
- ◆ Consider how many decades it took, for example, to “prove” that cigarette smoking was highly addictive and caused multitudes of dire health problems.

### WHAT TO DO

Become informed and aware of how you can minimize your exposure to the constant sea of pollutants in which we are awash.

Become informed as to how you can decrease your body's load of toxic chemicals, and learn how to strengthen your innate defense mechanisms.