

Inflammation, Autoimmunity & Hormones

Why Hormone Balance is Critical in Autoimmune Health

How Immune Dysregulation Affects Hormones

When the immune system is in a constant state of alert—as seen in chronic inflammation or autoimmune disease—it disrupts the delicate communication between the brain, immune system, and endocrine system.

- Chronic inflammation **disrupts the HPA axis** (the brain-adrenal connection), altering cortisol rhythms and impacting sex hormone production.
- Inflammatory cytokines can **suppress ovulation** and shift estrogen/progesterone balance.
- The immune system and endocrine system are **bidirectional**: hormones influence immunity, and immune activity impacts hormone levels.

Why Women with Autoimmune Disease Often Have Hormone Imbalances

Autoimmune diseases disproportionately affect women—especially during hormone shifts like puberty, pregnancy, and perimenopause. Here's why:

- **Estrogen** modulates immune function—too much or too little can worsen autoimmunity.
- **Low progesterone** is common in autoimmunity and removes a key anti-inflammatory signal.
- Many women with autoimmunity show signs of **estrogen dominance** (PMS, painful periods, fibrocystic breasts).
- **Fluctuating hormones** can trigger flares or worsen symptoms, especially during the luteal phase or perimenopause.

Tips to Lower Inflammation and Balance Hormones

To calm the immune system and support hormone balance, we target the root causes of inflammation:

- **Anti-inflammatory diet**
 - Focus on omega-3s, antioxidants, colorful vegetables, and clean protein.
 - Avoid gluten, dairy, sugar, and ultra-processed foods (often trigger flares).
- **Balance blood sugar**
 - Stable blood sugar reduces insulin spikes and inflammatory responses.
- **Support hormone detox pathways**
 - Liver and gut health are essential to metabolize estrogen and reduce reabsorption.
 - Cruciferous veggies, fiber, and binders can help.
- **Address cortisol and stress**
 - Chronic stress fuels both inflammation and hormone imbalance.
 - Support adrenals with adaptogens, sleep, and nervous system regulation.
- **Personalized testing**
 - DUTCH, hormone panels, and inflammatory markers guide targeted protocols.

Bottom Line

If you're managing an autoimmune condition, hormone support isn't optional—it's essential. A **functional medicine approach** looks at the full picture to calm the immune system and restore hormonal harmony.

"Inflammation and hormones are always in conversation—so we treat both."