

# BASIC HORMONE REPLACEMENT GUIDELINES

CHAPTER 2  
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BRINGING A NEW DIMENSION TO PAIN CARE

Information presented here is a public service for health practitioners. It is provided by the Tennant Foundation.

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# **REPLACEMENT MAY BE NEEDED UNDER TWO CIRCUMSTANCES**

- ✓ **Pain has reduced serum hormone levels**
- ✓ **Opioids and other medications have reduced serum hormone levels**



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# HORMONE REPLACEMENT SAFETY

- In pain patients the pituitary, adrenals, and gonads are usually not irreparably damaged, so total replacement isn't usually necessary or permanent.

*Exception: Autoimmune Disease with Gland Destruction*

- Hormone serum levels in their normal range aren't known to cause pituitary suppression or cancer



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# SUB- REPLACEMENT

- “Sub-replacement” is used in pain management-not total.

*Example: Adrenals make 20 to 30mg of hydrocortisone-equivalence a day. Pain patients usually require less.*

- Use bio-identical hormones and not potent synthetics.

*Example: Use hydrocortisone and not methylprednisolone, dexamethasone, or prednisone.*



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# **OPIOID SPARING** **RECOMMENDATIONS**

- **To spare or reduce opioids, first normalize serum hormone levels (cortisol, testosterone, pregnenolone)**
- **In a patient on opioids, determine hormone levels before starting a long-acting opioid**
- **Don't assume opioids are ineffective or causing hyperalgesia or allodynia until hormone serum levels are determined**



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# **MOST COMMON REPLACEMENTS**

## **HORMONE**

## **USUAL DAILY DOSAGES**

**Hydrocortisone**

**5 to 15 mg**

**Pregnenolone**

**100 to 300 mg**

**Testosterone**

**Male: 10 – 100 mg**

**Female: 2.5 – 25 mg**

**Dehydroepiandrosterone  
(DHEA)**

**100 to 300 mg**



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# **TITRATION AND** **MONITORING**

- **Increase daily dosage over 6 to 8 weeks.**
- **Repeat serum levels every 2 to 4 weeks until hormone is in normal range**
- **Patient can attempt tapering after pain is well-controlled**



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# HYDROCORTISONE DOSING

- **Experts have various opinions**
- **Methods basically of two types:**
  - ✓ **Higher morning dosage**
  - or**
  - ✓ **Split dosages throughout day**



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# **TESTOSTERONE DOSING**

- **Should avoid injectable form due to high serum levels and pituitary suppression**
- **Topical compounds are popular for cost reasons. Concentrations range from 1 to 10%.**

*Example: 30 gms of 5% concentration provides 1 gm of base cream and 50 mg of active drug a day*



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# **TESTOSTERONE ALTERNATIVES** **AND ENHANCERS**

- **Human Chorionic Gonadotropin (HCG)**
  - ✓ **Sublingual-compounded 125 to 250 units a day**
  - ✓ **Injectable 500 to 1000 units 2 to 3 times a week**
  
- **Dehydroepiandrosterone (DHEA)**
  - ✓ **100 to 300 mg a day**
  
- **Medroxyprogesterone**
  - ✓ **20 to 40 mg a day**



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# **PREGNENOLONE DOSING**

- **Chewable tablets best as gastrointestinal absorption is poor**
- **Side-effects occur with excess dosing**
  - ✓ **Headache**
  - ✓ **Dysphoria**
  - ✓ **Dizziness**



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