TESTOSTERONE PREPARATIONS

These products are used to treat conditions involving low levels of male hormone, or testosterone. They are usually intended to replace normal levels of male hormone that are missing from the body.

<table>
<thead>
<tr>
<th>Preparation</th>
<th>Brand Name(s)</th>
<th>Strengths</th>
<th>Usual Doses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patch (Topical)</td>
<td>Androderm</td>
<td>2.5, 5 mg</td>
<td>1-2 patches/day</td>
</tr>
<tr>
<td></td>
<td>Testoderm TTS</td>
<td>5 mg</td>
<td>1-2 patches/day</td>
</tr>
<tr>
<td>Gel (Topical)</td>
<td>Androgel 1%</td>
<td>2.5, 5 grams</td>
<td>5-10 grams/day</td>
</tr>
<tr>
<td></td>
<td>Testim 1%</td>
<td>5 grams</td>
<td>5-10 grams/day</td>
</tr>
<tr>
<td>Buccal (Cheek)</td>
<td>Striant</td>
<td>30 mg</td>
<td>1-2 tabs every 12 hours</td>
</tr>
<tr>
<td>IM Injections</td>
<td>Depo-Testosterone</td>
<td>100, 200 mg/mL</td>
<td>100-400 mg every 2-4 wks</td>
</tr>
<tr>
<td></td>
<td>Delatestryl</td>
<td>200 mg/mL</td>
<td>100-400 mg every 2-4 wks</td>
</tr>
</tbody>
</table>

POTENTIAL USES:

1) Male Hypogonadism (Low Testosterone Levels)
2) Delayed Puberty
3) Female Sexual Dysfunction (controversial)

CONTRAINDICATIONS: (Do not use if any of these conditions are present)

1) Breast or Prostate Cancer
2) Pregnancy, Nursing
3) Severe Liver Disease
4) Severe Obstructive Sleep Apnea
5) Severe Congestive Heart Failure
6) Elevated Red Blood Cell Count (Hematocrit)
7) Known Allergy to Testosterone Preparation(s)

FDA PREGNANCY CATEGORY: X (Highly Unsafe)

ADVERSE REACTIONS:

1) Increased Risk of Prostate Cancer (Elderly Men)
2) Worsening of Obstructive Sleep Apnea
3) Worsening of Congestive Heart Failure
4) Leg Swelling (Edema)
5) Elevated Red Blood Cell Count

Disclaimer: This handout is provided as an educational service for patients. It is not all-inclusive, and is not intended to replace other sources of drug information. Please refer to each drug's package insert for complete drug prescribing information.
MONITORING REQUIREMENTS

1) Testosterone levels – usually 6-8 weeks after initiation or dosing changes
2) Prostate Specific Antigen (PSA) levels – before therapy, yearly
3) Digital Rectal Examinations – before therapy, yearly
4) Hematocrit (Red Blood Cell Count) – before therapy, periodically
5) Liver Function Tests – before therapy, then periodically
6) Cholesterol Levels – before therapy, then periodically

COMMON QUESTIONS

1) Which type of testosterone preparation is best?

All of these preparations are effective for raising testosterone levels. The topical and buccal products tend to achieve steadier hormone levels. The choice of product is largely dependent upon patient preferences and costs. For example, the gels tend to be easiest to tolerate, but are also the most expensive.

2) Does testosterone increase the risk of prostate cancer?

This point is controversial. There is good evidence that the use of testosterone replacement therapy is associated with an increased risk of prostate cancer. It is less clear whether testosterone causes new prostate cancers, or simply leads to the earlier detection of existing tumors. In any case, careful monitoring for prostate cancer is essential for older patients receiving testosterone replacement therapy.

3) What are my “goal” testosterone levels?

The usual goal of testosterone replacement therapy is to achieve hormone levels in the normal range, which in males is usually well over 200 ng/dL. Since the normal range of male testosterone levels is wide (200-800 ng/dL) and age-dependent, specific target testosterone levels vary widely depending on the patient and on symptomatic responses to therapy.