In children, androgen therapy may accelerate bone maturation without producing osteoporosis (See DOSAGE AND ADMINISTRATION).

**CONTRAINDICATIONS**

1. Known or suspected carcinoma of the prostate or the male breast.
2. Carcinoma of the breast in females with hypercalcemia (androgenic anabolic steroids may stimulate osteolytic bone resorption).
3. Pregnancy, because of possible masculinization of the fetus. Oxandrin has been shown to cause embryotoxicity, fetotoxicity, infertility, and masculinization of female animal offspring when given in doses 9 times the human dose.
4. Nephrosis, the nephrotic phase of nephritis.
5. Hypercalcemia.

Cholestatic hepatitis and jaundice may occur with 17-alpha-alkylated androgens at a relatively low dose. If cholestatic hepatitis with jaundice appears or if liver function tests become abnormal, oxandrolone should be discontinued and the etiology should be determined. Drug-induced jaundice is reversible when the medication is discontinued.

In patients with breast cancer, anabolic steroid therapy may cause hypercalcemia by stimulating osteolysis. Oxandrolone therapy should be discontinued if hypercalcemia occurs.

Edema with or without congestive heart failure may be a serious complication in patients with pre-existing cardiac, renal, or hepatic disease. Concomitant administration of adrenal cortical steroid or ACTH may increase the edema.

Anabolic steroids may cause suppression of clotting factors II, V, VII, and X, and an increase in prothrombin time.

**PRECAUTIONS:**

Geriatric patients treated with androgenic anabolic steroids may be at an increased risk for the development of prostatic hypertrophy and prostatic carcinoma.

ANABOLIC STEROIDS HAVE NOT BEEN SHOWN TO ENHANCE ATHLETIC ABILITY.
A multidose study of oxandrolone, given as 5 or 10 mg BID in 15 warfarin, resulted in a mean increase in S-warfarin half-life from 26 to 48 hours and AUC from 4.55 to 12.08 ng*hr/mL: similar increases in R-warfarin half-life and AUC were also detected. Microscopic hematuria (9/15) and gingival bleeding (1/15) were also observed. A 5.5-fold decrease in the mean warfarin dose from 6.13 mg/day to 1.13 mg/day aspartate aminotransferase (AST, SGOT) and alkaline phosphatase. Furthermore, in patients receiving both drugs, careful monitoring of the INR or PT, and adjustment of the warfarin dosage if indicated is recommended. When oxandrolone therapy is initiated in a patient already receiving treatment with warfarin, the INR or prothrombin time (PT) should be monitored closely and the dose of warfarin adjusted as necessary until a stable target INR or PT has been achieved. Gastrointestinal: diarrhoea, nausea, vomiting, changes in weight, headache, hot flushes in women, increased frequency or duration of micturition, and the effects of androgen therapy on the epiphyseal centers. Serum lipids and high-density lipoprotein cholesterol determinations should be done periodically as androgenic anabolic steroids have been reported to increase low-density lipoproteins. Serum cholesterol levels may increase during therapy. Therefore, caution is required when administering these agents to patients with a history of myocardial infarction or coronary artery disease. Serial determinations of serum cholesterol should be made and therapy adjusted accordingly.

The physician should instruct patients to report any of the following side effects of androgens: 

**Males**: Too frequent or persistent erections of the penis, appearance or aggravation of acne. 
**Females**: Hoarseness, acne, changes in menstrual periods, or more facial hair. 
**All patients**: Nausea, vomiting, changes in skin color, or ankle swelling.

**Laboratory Tests**: 
Women with disseminated breast carcinoma should have frequent determination of urine and serum calcium levels during the course of therapy. (See WARNINGS).

Because of the hepatotoxicity associated with the use of 17α-alkylated androgens, liver function tests should be obtained periodically. Periodic (every 6 months) x-ray examinations of bone age should be made during treatment of children to determine the rate of bone maturation and the effects of androgen therapy on the epiphyseal centers.

**Warfarin**: A multidose study of oxandrolone, given as 5 or 10 mg BID in 15 healthy subjects concurrently treated with warfarin, resulted in a mean increase in S-warfarin half-life from 26 to 48 hours and AUC from 4.55 to 12.08 ng*hr/mL: similar increases in R-warfarin half-life and AUC were also detected. Microscopic hematuria (9/15) and gingival bleeding (1/15) were also observed. A 5.5-fold decrease in the mean warfarin dose from 6.13 mg/day to 1.13 mg/day (approximately 80-85% reduction of warfarin dose), was necessary to maintain a target INR of 1.5. When oxandrolone therapy is initiated in a patient already receiving treatment with warfarin, the INR or prothrombin time (PT) should be monitored closely and the dose of warfarin adjusted as necessary until a stable target INR or PT has been achieved. Furthermore, in patients receiving both drugs, careful monitoring of the INR or PT, and adjustment of the warfarin dosage if indicated are recommended when the oxandrolone dose is changed or discontinued. Patients should be closely monitored for signs and symptoms of occult bleeding.

**Oral hypoglycemic agents**: Oxandrolone may inhibit the metabolism of oral hypoglycemic agents.

**Adrenal steroids or ACTH**: In patients with edema, concomitant administration with adrenal cortical steroids or ACTH may increase the edema.

**Drug/Laboratory test interactions**: Anabolic steroids may decrease levels of thyroxine-binding globulin, resulting in decreased total T₄ serum levels and increased resin uptake of T₃ and T₂. Free thyroid hormone levels remain unchanged. In addition, a decrease in PBI and radioactive iodine uptake may occur.

**Carcinogenesis, mutagenesis, impairment of fertility**

**Animal data**: Oxandrolone has not been tested in laboratory animals for carcinogenic or mutagenic effects. In 2-year chronic oral rat studies, a dose-related reduction of spermatogenesis and decreased organ weights (testes, prostate, seminal vesicles, ovaries, uterus, adrenals, and pituitary) were shown.

**Human data**: Liver cell tumors have been reported in patients receiving long-term therapy with anabolic steroids in high doses (See WARNINGS). Withdrawal of the drugs did not lead to regression of the tumors in all cases.

Geriatric patients treated with anabolic anabolic steroids may be at an increased risk for the development of prostatic hypertrophy and prostatic carcinoma.

**Pregnancy**: Teratogenic effects—Pregnancy Category X (See CONTRAINDICATIONS).

**Nursing mothers**: It is not known whether anabolic steroids are excreted in human milk. Because of the potential of serious adverse reactions in nursing infants from oxandrolone, a decision should be made whether to discontinue nursing or to discontinue the drug, taking into account the importance of the drug to the mother.

**Pediatric use**: Anabolic agents may accelerate epiphyseal maturation more rapidly than linear growth in children and the effect may continue for 6 months after the drug has been stopped. Therefore, therapy should be monitored by x-ray studies at 6-month intervals in order to avoid the risk of compromising adult height. Androgenic anabolic steroid therapy should be used very cautiously in children and only by specialists who are aware of the effects on bone maturation (See WARNINGS).

**OVERDOSAGE**
No symptoms or signs associated with overdosage have been reported. It is possible that sodium and water retention may occur.

The oral LD₅₀ of oxandrolone in mice and dogs is greater than 5,000 mg/kg. No specific antidote is known, but gastric lavage may be used.

**DOSAGE AND ADMINISTRATION**
Therapy with anabolic steroids is adjunctive to and not a replacement for conventional therapy. The duration of therapy with Oxandrin (oxandrolone) will depend on the response of the patient and the possible appearance of adverse reactions. Therapy should be intermittent.
Adults: The response of individuals to anabolic steroids varies. The daily adult dosage is 2.5 mg to 20 mg given in 2 to 4 divided doses. The desired response may be achieved with as little as 2.5 mg or as much as 20 mg daily. A course of therapy of 2 to 4 weeks is usually adequate. This may be repeated intermittently as indicated.

Children: For children the total daily dosage of Oxandrin is ≤0.1 mg per kilogram body weight or ≤0.045 mg per pound of body weight. This may be repeated intermittently as indicated.

HOW SUPPLIED
Oxandrin 2.5 mg tablets are oval, white, and scored with BTG on one side and “11” on each side of the scoreline on the other side; bottles of 100 (NDC 54396-111-11).
Oxandrin 10 mg tablets are capsule shaped, white, with BTG on one side and “10” on the other side; bottles of 60 (NDC 54396-110-60).

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