

PRESCRIPTION MONOGRAPH

Compounded Active Ingredients: Oxytocin

Form: Nasal Spray

Drug Class:

- Neuropeptide hormone
 - Hypothalamic hormone analog
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Mechanism of Action^{1,2}:

Oxytocin is a peptide hormone produced by the hypothalamus and secreted by the posterior pituitary. It is intended to

- Stimulate uterine smooth muscle contraction during labor
 - Promote milk ejection in lactating women
 - Improve libido and emotional arousal
 - Modulate social cognition, stress, mood, and appetite
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Indications Commonly Prescribed For:

- Induction or augmentation of labor
 - Postpartum uterine bleeding control
 - Social anxiety disorder
 - Autism spectrum disorder (ASD) support
 - Alcohol use disorder (as adjunct)
 - Sexual dysfunction and bonding
 - Appetite suppression / metabolic modulation
 - PTSD, emotional processing, mood disorders
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Before Use: Let your doctor know if you have had any allergic reactions to nasal sprays in the past. Let your health care provider know if you are pregnant or breast feeding. Let your healthcare provider know of all supplements you are currently taking. Let them know of any thyroid or corticosteroid medications you are prescribed.

Contraindications:

- Hypersensitivity to oxytocin
 - Fetal distress, cephalopelvic disproportion (OB use)
 - Cardiovascular disease
 - Hyponatremia risk (high doses or prolonged infusion)
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Cautions: Let your Healthcare provider know of any changes of vision while on this compounded preparation

Warnings and Precautions:

- Hyponatremia due to antidiuretic effects in high doses
 - Use with caution in patients with seizure disorders
 - Psychiatric effects may be context-dependent (prosocial or defensive)
 - Avoid in pregnancy unless under obstetric supervision
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Compounded medications are not FDA-approved and may differ in risks, benefits, and side effects from FDA-approved products. These statements have not been evaluated by the FDA and are not intended to diagnose, treat or cure any disease or condition and do not indicate any claims of safety or efficacy. Individual results may vary.

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Adverse Reactions:

Common:

- Nasal irritation
- Headache
- Emotional lability
- Drowsiness

Serious:

- Uterine rupture
 - Water Intoxication/hyponatremia
 - Hypotension, tachycardia
 - Seizures
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Interactions:

- May potentiate vasopressin or diuretics
 - Caution with SSRIs (risk of hyponatremia)
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Use in Specific Populations:

- Pregnancy: Only under direct obstetric care
 - Lactation: approved for postpartum milk let-down
 - Pediatrics: Investigational used in ASD
 - Geriatrics: Safe in cognitive trials, monitor BP
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Storage:

- Refrigerate at 2°C to 8°C (36°F to 46°F)
 - Can be stored at room temperature (up to 30°C or 86°F) for up to 48hrs
 - Do not freeze
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How to Use: This medication is a nasal spray and is delivered in a premixed liquid form. Gently blow your nose to clear it from mucous before using the compound. Remove the ring and protective cap to reveal the nasal spray tip. Tilt head slightly forward, hold bottle with thumb on bottom and your index and middle fingers on top. Use your fingers to squeeze down on the pump while you breathe in slowly through your nose. If needed, repeat the process for the second nostril.

Monitoring Parameters:

- For labor induction: uterine tone, fetal heart rate, maternal BP
 - For intranasal/psychiatric: mood changes, behavioral response, adverse effects
 - Serum sodium in patients at risk of SIADH/hyponatremia
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Citations:

1. Olff M, Frijling JL, Kubzansky LD, et al. The role of oxytocin in social bonding, stress regulation, and mental health: an update on the moderating effects of context and interindividual differences. *Psychoneuroendocrinology*. 2013;38(9):1388-1398. doi:10.1016/j.psyneuen.2013.03.011
 2. Ito E, Shima R, Yoshioka T. A novel role of oxytocin: Oxytocin-induced well-being in humans. *Biophys Physicobiol*. 2019;16:132-139. Published 2019 Aug 24. doi:10.2142/biophysico.16.0_132
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