

CSL Behring LLC

Stimate®  
(desmopressin acetate)

Package Insert  
Revised: June 2013  
Page 1

1 **CSL Behring**

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**Stimate®**  
(desmopressin acetate)  
**Nasal Spray, 1.5 mg/mL**

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5

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**R<sub>x</sub> only**

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9

**DESCRIPTION**

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**Stimate® (desmopressin acetate)** is a synthetic analogue of the natural pituitary hormone 8-arginine vasopressin (ADH), an antidiuretic hormone affecting renal water conservation. **Stimate® Nasal Spray** contains 1.5 mg/mL desmopressin acetate in an aqueous solution at a pH of approximately 5. **Stimate® Nasal Spray's** compression pump delivers 0.1 mL (150 mcg) of solution per spray. It is chemically defined as follows:

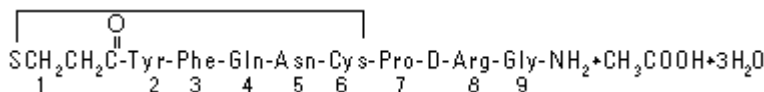
11

12

13

14

**Mol. Wt. 1183.34** Empirical formula: C<sub>46</sub>H<sub>64</sub>N<sub>14</sub>O<sub>12</sub>S<sub>2</sub>•C<sub>2</sub>H<sub>4</sub>O<sub>2</sub>•3H<sub>2</sub>O



17

1-(3-mercaptopropionic acid)-8-D-arginine vasopressin monoacetate (salt) trihydrate.

18

19

**Stimate® Nasal Spray** is provided as an aqueous solution for intranasal use.

20

21

Each mL contains:

**Active ingredient:**

Desmopressin acetate 1.5 mg

**Inactive ingredients:**

Sodium chloride 7.5 mg

**Buffer:**

Citric acid monohydrate 1.7 mg

Disodium phosphate dihydrate 3 mg

**Preservative:**

Benzalkonium chloride 0.1 mg

Purified water To 1 mL

22

23

**CLINICAL PHARMACOLOGY**

24

**Stimate® Nasal Spray** contains as active substance, desmopressin acetate, which is a synthetic analogue of the natural hormone arginine vasopressin. One spray or 0.1 mL (150 mcg) of **Stimate® Nasal Spray** solution has an antidiuretic activity of about 600 International Units.

25

26

27

28

Desmopressin acetate has been shown to be more potent than arginine vasopressin in increasing plasma levels of Factor VIII activity in patients with hemophilia and von Willebrand's disease Type I.

29

30

31

32

33 Dose-response studies were performed in healthy persons using doses of 150 to 450 mcg,  
34 administered as one to three sprays. The response to **Stimate<sup>®</sup> Nasal Spray** is dose-related, with  
35 maximal plasma levels of 150 to 250 percent of initial concentrations achieved for both Factor  
36 VIII and von Willebrand factor. The increase is rapid and evident within 30 minutes, reaching a  
37 maximum at about 1.5 hours.

38

39 The percentage increase of Factor VIII and von Willebrand factor levels in patients with mild  
40 hemophilia A and von Willebrand's disease was not notably different from that observed in  
41 normal healthy individuals when treated with 300 mcg of **Stimate<sup>®</sup> Nasal Spray**. In patients  
42 with von Willebrand's disease, levels of Factor VIII coagulant activity and von Willebrand factor  
43 antigen remained greater than 30 U/dL for 8 hours after a 300 mcg dose of **Stimate<sup>®</sup> Nasal  
44 Spray**. After 300 mcg of **Stimate<sup>®</sup> Nasal Spray**, the percentage increase of Factor VIII and von  
45 Willebrand factor levels in patients with mild hemophilia A and von Willebrand's disease was  
46 less than observed after 0.3 mcg/kg of intravenous desmopressin acetate.

47

48 Plasminogen activator activity increases rapidly after intravenous desmopressin acetate infusion,  
49 but there has been no clinically significant fibrinolysis in patients treated with desmopressin  
50 acetate.

51

52 The effect of repeated intravenous desmopressin acetate administration when doses were given  
53 every 12 to 24 hours has generally shown a diminution of the Factor VIII activity increase noted  
54 after a single dose. It is possible to reproduce the initial response in some patients after an  
55 interval of one week, but other patients may require as long as 6 weeks.

56

57 The half-life of **Stimate<sup>®</sup> Nasal Spray** was between 3.3 and 3.5 hours, over the range of  
58 intranasal doses, 150 to 450 mcg. Plasma concentrations of **Stimate<sup>®</sup> Nasal Spray** were  
59 maximal approximately 40 to 45 minutes after dosing.

60

61 The bioavailability of **Stimate<sup>®</sup> Nasal Spray** when administered by the intranasal route as a 1.5  
62 mg/mL solution is between 3.3 and 4.1 percent.

63

64 The change in structure of arginine vasopressin to desmopressin acetate has resulted in a  
65 decreased vasopressor action and decreased actions on visceral smooth muscle relative to the  
66 enhanced antidiuretic activity, so that clinically effective antidiuretic doses are usually below  
67 threshold levels for effects on vascular or visceral smooth muscle.

68

## 69 **INDICATIONS AND USAGE**

70 Before the initial therapeutic administration of **Stimate<sup>®</sup> Nasal Spray**, the physician should  
71 establish that the patient shows an appropriate change in the coagulation profile following a test  
72 dose of intranasal administration of **Stimate<sup>®</sup> Nasal Spray**.

73

74 Desmopressin acetate is also available as a solution for injection (**DDAVP<sup>®</sup> Injection**) when the  
75 intranasal route may be compromised. These situations include nasal congestion and blockage,  
76 nasal discharge, atrophy of nasal mucosa, and severe atrophic rhinitis. Intranasal delivery may  
77 also be inappropriate where there is an impaired level of consciousness.

78

79 **Hemophilia A**

80 **Stimate<sup>®</sup> Nasal Spray** is indicated for patients with hemophilia A with Factor VIII coagulant  
81 activity levels greater than 5%.

82

83 Desmopressin acetate will also stop bleeding in patients with hemophilia A with episodes of  
84 spontaneous or trauma-induced injuries such as hemarthroses, intramuscular hematomas or  
85 mucosal bleeding.

86

87 In the outpatient setting during two clinical trials where patients recorded bleeding episodes,  
88 **Stimate<sup>®</sup> Nasal Spray** provided effective hemostasis 100% of the time in 2 of the 5 patients. For  
89 those patients not responding in 100% of bleeding occasions, 45% (14 of 31) of bleeding  
90 episodes were effectively controlled with **Stimate<sup>®</sup> Nasal Spray**.

91

92 Desmopressin acetate is not indicated for the treatment of hemophilia A with Factor VIII  
93 coagulant activity levels equal to or less than 5%, or for the treatment of hemophilia B, or in  
94 patients who have Factor VIII antibodies.

95

96 **von Willebrand's Disease (Type I)**

97 **Stimate<sup>®</sup> Nasal Spray** is indicated for patients with mild to moderate classic von Willebrand's  
98 disease (Type I) with Factor VIII levels greater than 5%.

99

100 Desmopressin acetate will also stop bleeding in mild to moderate von Willebrand's disease  
101 patients with episodes of spontaneous or trauma-induced injuries such as hemarthroses,  
102 intramuscular hematomas, mucosal bleeding or menorrhagia.

103

104 In the outpatient setting during two clinical trials where patients recorded bleeding episodes,  
105 **Stimate<sup>®</sup> Nasal Spray** provided effective hemostasis 100% of the time in 75% of the patients  
106 (n=16). For those patients not responding in 100% of bleeding occasions, 78% (64 of 82) of  
107 bleeding episodes were effectively controlled with **Stimate<sup>®</sup> Nasal Spray**.

108

109 Patients may respond in a variable fashion depending on the type of molecular defect they have.  
110 Bleeding time and Factor VIII coagulant activity, ristocetin cofactor activity, and von Willebrand  
111 factor antigen should be checked after initial administration of **Stimate<sup>®</sup> Nasal Spray** to ensure  
112 that adequate levels have been achieved.

113

114 **Stimate<sup>®</sup> Nasal Spray** is not indicated for the treatment of severe classic von Willebrand's  
115 disease (Type I) and when there is evidence of an abnormal molecular form of Factor VIII  
116 antigen. See **WARNINGS**.

117

118 **CONTRAINDICATIONS**

119 None.

120

121

122 **WARNINGS**

123 For intranasal use only.

124

125 Very rare cases of hyponatremia have been reported from world-wide postmarketing experience  
126 in patients treated with Stimate (desmopressin acetate). Stimate is a potent antidiuretic which,  
127 when administered, may lead to water intoxication and/or hyponatremia. Unless properly  
128 diagnosed and treated hyponatremia can be fatal. Therefore, fluid restriction is recommended  
129 and should be discussed with the patient and/or guardian. Careful medical supervision is  
130 required.

131

132 When Stimate Nasal Spray is administered, in particular in pediatric and geriatric patients, fluid  
133 intake should be adjusted downward in order to decrease the potential occurrence of water  
134 intoxication and hyponatremia (See *PRECAUTIONS, Pediatric Use* and *Geriatric Use*.) All  
135 patients receiving Stimate therapy should be observed for the following signs or symptoms  
136 associated with hyponatremia: headache, nausea/vomiting, decreased serum sodium, weight  
137 gain, restlessness, fatigue, lethargy, disorientation, depressed reflexes, loss of appetite,  
138 irritability, muscle weakness, muscle spasms or cramps and abnormal mental status such as  
139 hallucinations, decreased consciousness and confusion. Severe symptoms may include one or a  
140 combination of the following: seizure, coma and/or respiratory arrest. Particular attention should  
141 be paid to the possibility of the rare occurrence of an extreme decrease in plasma osmolality that  
142 may result in seizures that could lead to coma.

143

144 Stimate should be used with caution in patients with habitual or psychogenic polydipsia, who  
145 may be more likely to drink excessive amounts of fluids, putting them at greater risk of  
146 hyponatremia.

147

148 **Stimate® Nasal Spray** should not be used to treat patients with Type IIB von Willebrand's  
149 disease since platelet aggregation may be induced.

150

151 **PRECAUTIONS**

152 **General**

153 Desmopressin acetate has infrequently produced changes in blood pressure causing either a slight  
154 elevation in blood pressure or a transient fall in blood pressure and a compensatory increase in  
155 heart rate. The drug should be used with caution in patients with coronary artery insufficiency  
156 and/or hypertensive cardiovascular disease.

157

158 **Stimate® Nasal Spray** should be used with caution in patients with conditions associated with  
159 fluid and electrolyte imbalance, such as cystic fibrosis, heart failure and renal disorders because  
160 these patients are prone to hyponatremia.

161

162 There have been rare reports of thrombotic events (thrombosis, acute cerebrovascular  
163 thrombosis, acute myocardial infarction) following desmopressin acetate injection in patients  
164 predisposed to thrombus formation. No causality has been determined; however, the drug should  
165 be used with caution in these patients.

166

167 Severe allergic reactions have been reported rarely. Fatal anaphylaxis has been reported in one  
168 patient who received intravenous DDAVP<sup>®</sup> (desmopressin acetate). It is not known whether  
169 antibodies to desmopressin acetate are produced after repeated administration.  
170

171 Since **Stimate<sup>®</sup> Nasal Spray** is used intranasally, changes in the nasal mucosa such as scarring,  
172 edema, or other disease may cause erratic, unreliable absorption in which case **Stimate<sup>®</sup> Nasal**  
173 **Spray** should be discontinued until the nasal problems resolve. For such situations, DDAVP<sup>®</sup>  
174 Injection should be considered.  
175

### 176 **Information for Patients**

177 Patients should be informed that the bottle accurately delivers 25 sprays of 150 mcg each. Any  
178 solution remaining after 25 sprays should be discarded since the amount delivered thereafter may  
179 be substantially less than 150 mcg of drug. No attempt should be made to transfer remaining  
180 solution to another bottle. Patients should be instructed to read accompanying directions on use  
181 of the spray pump carefully before use.  
182

183 Patients should also be advised that if bleeding is not controlled, the physician should be  
184 contacted.  
185

### 186 **Hemophilia A**

187 Laboratory tests for assessing patient status include levels of Factor VIII coagulant, Factor VIII  
188 antigen and Factor VIII ristocetin cofactor (von Willebrand factor) as well as activated partial  
189 thromboplastin time. Factor VIII coagulant activity should be determined before giving **Stimate<sup>®</sup>**  
190 **Nasal Spray** for hemostasis. If Factor VIII coagulant activity is present at less than 5% of  
191 normal, **Stimate<sup>®</sup> Nasal Spray** should not be relied on.  
192

### 193 **von Willebrand's Disease**

194 Laboratory tests for assessing patient status include levels of Factor VIII coagulant activity,  
195 VWF:RCo and VWF:Ag.  
196

### 197 **Drug Interactions**

198 Although the pressor activity of desmopressin acetate is very low, its use with other pressor  
199 agents should be done only with careful patient monitoring. The concomitant administration of  
200 drugs that may increase the risk of water intoxication with hyponatremia (e.g., tricyclic  
201 antidepressants, selective serotonin re-uptake inhibitors, chlorpromazine, opiate analgesics,  
202 NSAIDs, lamotrigine and carbamazepine) should be performed with caution.  
203

204 DDAVP<sup>®</sup> Injection has been used with epsilon aminocaproic acid without adverse effects.  
205

### 206 **Carcinogenicity, Mutagenicity, Impairment of Fertility**

207 There have been no long-term studies in animals to assess the carcinogenic, mutagenic or  
208 impairment of fertility potential of **Stimate<sup>®</sup> Nasal Spray**.  
209

210 **Pregnancy Category B**

211 Reproduction studies performed in rats and rabbits by the subcutaneous route at doses up to 10  
212 mcg/kg/day have revealed no evidence of harm to the fetus due to desmopressin acetate. This  
213 dose is equivalent to 10 times (for Factor VIII stimulation) or 38 times (for diabetes insipidus)  
214 the systemic human dose based on a mg/M<sup>2</sup> surface area.

215

216 There are no adequate and well-controlled studies in pregnant women. Several publications of  
217 desmopressin acetate's use in the management of diabetes insipidus during pregnancy are  
218 available; these include a few anecdotal reports of congenital anomalies and low birth weight  
219 babies. However, no causal connection between these events and desmopressin acetate has been  
220 established. A 15-year, Swedish epidemiologic study of the use of desmopressin acetate in  
221 pregnant women with diabetes insipidus found the rate of birth defects to be no greater than that  
222 in the general population. As opposed to preparations containing natural hormones,  
223 desmopressin acetate in antidiuretic doses has no uterotonic action and the physician will have to  
224 weigh the therapeutic advantages against the possible risks in each case.

225

226 **Nursing Mothers**

227 There have been no controlled studies in nursing mothers. A single study in postpartum women  
228 demonstrated a marked change in plasma, but little if any change in assayable DDAVP® in breast  
229 milk following an intranasal dose of 10 mcg. It is not known whether this drug is excreted in  
230 human milk. Because many drugs are excreted in human milk, caution should be exercised when  
231 **Stimate® Nasal Spray** is administered to a nursing woman.

232

233 **Pediatric Use**

234 Use in infants and children will require careful fluid intake restriction to prevent possible  
235 hyponatremia and water intoxication. **Stimate® Nasal Spray** should not be used in infants  
236 younger than 11 months in the treatment of hemophilia A or von Willebrand's disease; safety and  
237 effectiveness in children between 11 months and 12 years of age has been demonstrated.

238

239 **Geriatric Use**

240 Clinical studies of Stimate® did not include sufficient numbers of subjects aged 65 and over to  
241 determine whether they respond differently than younger subjects. However, other post-  
242 marketing experience has indicated the occurrence of hyponatremia with the use of desmopressin  
243 acetate and fluid overload.

244

245 Therefore, in elderly patients fluid intake should be adjusted downward in an effort to decrease  
246 the potential occurrence of water intoxication and hyponatremia. Particular attention should be  
247 paid to the possibility of the rare occurrence of an extreme decrease in plasma osmolality that  
248 may result in seizures, and that could lead to coma.

249

250 Patients who do not have need of antidiuretic hormone for its antidiuretic effect should be  
251 cautioned to ingest only enough fluid to satisfy thirst, in an effort to decrease the potential  
252 occurrence of water intoxication and hyponatremia.

253

254 As for all patients, dosing for geriatric patients should be appropriate to their clinical condition.

255

256

## ADVERSE REACTIONS

257 Infrequently, DDAVP® Injection has produced transient headache, nausea, mild abdominal  
258 cramps and vulval pain. These symptoms disappeared with reduction in dosage. Occasional  
259 facial flushing has been reported with the administration of DDAVP® Injection. Infrequently,  
260 high doses of intranasal DDAVP® have produced transient headache and nausea. Nasal  
261 congestion, rhinitis and flushing have also been reported occasionally along with mild abdominal  
262 cramps. These symptoms disappeared with reduction in dosage. Nosebleed, sore throat, cough  
263 and upper respiratory infections have also been reported.

264

265 In addition to those listed above, the following have also been reported in clinical trials with  
266 **Stimate® Nasal Spray**: Somnolence, dizziness, itchy or light-sensitive eyes, insomnia, chills,  
267 warm feeling, pain, chest pain, palpitations, tachycardia, dyspepsia, edema, vomiting, agitation  
268 and balanitis.

269

270 DDAVP® Injection (desmopressin acetate) has infrequently produced changes in blood pressure  
271 causing either a slight elevation or a transient fall with a compensatory increase in heart rate.  
272 Severe allergic reactions including anaphylaxis have been reported rarely with DDAVP®  
273 Injection.

274

## Post Marketing

276 There have been rare reports of convulsions from hyponatremia associated with concomitant use  
277 of desmopressin and the following medications: oxybutynin and imipramine.

278

279 See **WARNINGS** for the possibility of water intoxication, hyponatremia and coma.

280

281 **To report SUSPECTED ADVERSE REACTIONS, contact CSL Behring**  
282 **Pharmacovigilance at 1-866-915-6958 or FDA at 1-800-FDA-1088 or**  
283 [www.fda.gov/medwatch](http://www.fda.gov/medwatch).

284

## OVERDOSAGE

286 Signs of overdose may include confusion, drowsiness, continuing headache, problems with  
287 passing urine and rapid weight gain due to fluid retention. (See **WARNINGS**.) In cases of  
288 overdose, the dosage should be reduced, frequency of administration decreased, or the drug  
289 withdrawn according to the severity of the condition.

290

291 There is no known specific antidote for desmopressin acetate or **Stimate® Nasal Spray**.

292

293 An oral LD<sub>50</sub> has not been established. An intravenous dose of 2 mg/kg in mice demonstrated no  
294 effect.

295

## DOSAGE AND ADMINISTRATION

### Hemophilia A and von Willebrand's Disease (Type I)

298 **Stimate® Nasal Spray** is administered by nasal insufflation, one spray per nostril, to provide a  
299 total dose of 300 mcg. In patients weighing less than 50 kg, 150 mcg administered as a single

CSL Behring LLC

**Stimate<sup>®</sup>**  
(desmopressin acetate)

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300 spray provided the expected effect on Factor VIII coagulant activity, Factor VIII ristocetin  
301 cofactor activity and skin bleeding time. If **Stimate<sup>®</sup> Nasal Spray** is used preoperatively, it  
302 should be administered 2 hours prior to the scheduled procedure.  
303

304 The necessity for repeat administration of **Stimate<sup>®</sup> Nasal Spray** or use of any blood products  
305 for hemostasis should be determined by laboratory response as well as the clinical condition of  
306 the patient. Fluid restriction should be observed, and fluid intake should be limited to a  
307 minimum, from 1 hour before desmopressin administration, until at least 24 hours after  
308 administration. The tendency toward tachyphylaxis (lessening of response) with repeated  
309 administration given more frequently than once every 48 hours should be considered in treating  
310 each patient.  
311

312 The nasal spray pump can only deliver doses of 0.1 mL (150 mcg) or multiples of 0.1 mL. If  
313 doses other than these are required, DDAVP<sup>®</sup> Injection may be used.  
314

315 The spray pump must be primed prior to the first use. To prime pump, press down 4 times. The  
316 bottle should be discarded after 25 sprays since the amount delivered thereafter per spray may be  
317 substantially less than 150 mcg of drug.  
318

#### 319 **HOW SUPPLIED**

320 A 2.5 mL bottle with spray pump capable of delivering 25 sprays of 150 mcg (NDC 0053-6871-  
321 00).  
322

323 Store at room temperature not to exceed 25°C (77°F) for the period indicated by the expiration  
324 date on the label. Discard six months after being opened. Store bottle in upright position.  
325

326 Revised June 2013

IN-8155-09

327  
328 Manufactured for:

329 **CSL Behring LLC**

330 King of Prussia, PA 19406-0901

331 US License No. 1767  
332

333 By:

334 Ferring GmbH

335 Kiel, Germany  
336  
337



338 **PATIENT INSTRUCTION GUIDE**

339

340

341

342

**Stimate® Nasal Spray**  
**(Pronounced Stim-ate)**  
**(desmopressin acetate)**

343

344

345

346

Read this patient information leaflet before you start taking **Stimate® Nasal Spray** and each time you get a refill. There may be new information. This information does not take the place of talking to your healthcare provider about your medical condition or your treatment.

347

348

349

350

**What is the most important information I should know about Stimate® Nasal Spray?**

351

352

**All patients using Stimate® Nasal Spray are at risk for water intoxication, fluid overload and low sodium levels in the blood. You must follow your healthcare provider's instructions on limiting the amount of fluid you can drink when taking Stimate® Nasal Spray.**

353

354

355

356

- Do not drink more than you need to satisfy your thirst.
- You can have serious side effects such as seizures, coma, and death from drinking too much fluid.
- Children and elderly patients are at higher risk for these conditions and must follow their healthcare provider's restrictions on drinking fluids.

357

358

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360

361

362

Call your healthcare provider right away if you have any of the following symptoms while using Stimate® Nasal Spray. They may mean that your blood sodium level is low:

363

364

• Headache	• Loss of appetite
• Nausea	• Irritability
• Vomiting	• Muscle weakness
• Weight gain	• Muscle spasms or cramps
• Restlessness	• Hallucinations
• Tiredness	• Confusion

365

366

**Using Stimate® Nasal Spray the wrong way may cause it not to work to control bleeding.**

367

- Call your healthcare provider right away if you have any uncontrolled bleeding.

368

369

**What is Stimate® Nasal Spray?**

370

Stimate® Nasal Spray is a prescription medicine used to stop some types of bleeding in people with mild hemophilia A or mild to moderate von Willebrand's disease Type 1.

371

372

373

Stimate® Nasal Spray should not be used in children under 11 months of age.

374

375

376 **What should I tell my healthcare provider before I use Stimate® Nasal Spray?**

377

378 **Before taking Stimate® Nasal Spray, tell your healthcare provider about all of your medical**  
379 **conditions, including if you:**

- 380 • Have any nasal problems such as a stuffy nose, have ever had surgery on your nose, or  
381 have trouble breathing through your nose. You may need to use another form of this  
382 medicine.
- 383 • Have or have had any heart, blood circulation, or blood pressure problems.
- 384 • Have a condition that causes fluid or water imbalance problems such as:
- 385 • Cystic fibrosis
- 386 • Heart failure
- 387 • Kidney problems
- 388 • Have or have had a condition that causes you to be very thirsty.
- 389 • Are pregnant or plan to become pregnant. It is not known if Stimate® Nasal Spray will  
390 harm your unborn baby.
- 391 • Are breast-feeding or plan to breast-feed. It is not known if Stimate® Nasal Spray passes  
392 into your breast milk. You and your healthcare provider should decide if you will take  
393 Stimate® Nasal Spray.
- 394

395 **Tell your healthcare provider and pharmacist about all the medicines you take,** including  
396 prescription and non-prescription medicines, such as over-the-counter medicines, vitamins,  
397 supplements and herbal remedies.

398

399 Using Stimate® Nasal Spray with certain other medicines can affect the way Stimate® Nasal  
400 Spray works.

401

402 Know the medicines you take. Keep a list of them and show it to your healthcare provider and  
403 pharmacist when you get a new medicine.

404

405 **It is especially important to tell your healthcare provider if you take:**

- 406 • Blood pressure or heart medicines
- 407 • Antidepressants
- 408 • Anti-anxiety medicines
- 409 • Antihistamines
- 410 • Pain relievers such as narcotics or non-steroidal anti-inflammatory medicines (NSAIDs)
- 411 • Seizure medicines
- 412 • Medicines for over-active urinary bladder
- 413

414 Ask your healthcare provider or pharmacist if you are not sure if your medicine is one of these.

415

416 **How should I use Stimate® Nasal Spray?**

- 417 • Use Stimate® Nasal Spray exactly as your healthcare provider told you. Do not use more  
418 Stimate® Nasal Spray or take it more often than your healthcare provider told you.

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- 432
- The Stimate® Nasal Spray pump provides the correct dose of your medicine. For detailed instructions on how to use the nasal spray pump, see the *Patient Instructions for Use* at the end of this leaflet.
  - The nasal spray pump delivers 25 sprays of Stimate® Nasal Spray and each spray contains a measured amount of medicine. Any medicine left in the spray pump after 25 sprays should be thrown away because, at that time, the amount of medicine in each spray may be a lot less than the correct amount. Do not put any leftover medicine into another bottle.
  - If your symptoms do not improve, or if they become worse, contact your healthcare provider. Do not stop taking Stimate® Nasal Spray without talking to your healthcare provider.
  - If you use too much Stimate® Nasal Spray, call your healthcare provider or go to the nearest hospital emergency department right away.

### 433 What are the possible side effects of Stimate® Nasal Spray?

434

435 **Stimate® Nasal Spray may cause serious side effects** that come from having too much water in  
436 the body. See “**What is the most important information I should know about Stimate® Nasal**  
437 **Spray?**”.

438

439 Common side effects of Stimate Nasal Spray include:

- 440
- 441
- 442
- 443
- 444
- 445
- 446
- Occasional facial flushing
  - Nasal congestion
  - Runny nose
  - Nosebleed
  - Sore throat
  - Cough
  - Upper respiratory infections.

447

448 Tell your healthcare provider about any side effect that bothers you or does not go away. These  
449 are not all the possible side effects of Stimate® Nasal Spray. If you have questions, talk to your  
450 healthcare provider.

451

452 Call your doctor for medical advice about side effects. You may report side effects to FDA at 1-  
453 800-FDA-1088.

454

### 455 How should I store Stimate® Nasal Spray?

- 456
- 457
- 458
- 459
- Store at room temperature, but not higher than 77°F (25°C).
  - Throw away Stimate® Nasal Spray six months after it is opened, or when the expiration date has passed, if this date is before the six months is up.
  - Store Stimate® Nasal Spray standing upright.

460

461 **Keep Stimate® Nasal Spray and all medicines out of the reach of children.**

462

463

464 **General information about Stimate<sup>®</sup> Nasal Spray**

465 Medicines are sometimes prescribed for conditions that are not mentioned in the patient leaflet.  
466 Do not use Stimate<sup>®</sup> Nasal Spray for a condition for which it was not prescribed. Do not give  
467 Stimate<sup>®</sup> Nasal Spray to other people, even if they have the same symptoms you have. It may  
468 harm them.

469  
470 This patient information leaflet summarizes the most important information about Stimate<sup>®</sup>  
471 Nasal Spray. If you would like more information about Stimate<sup>®</sup> Nasal Spray, talk with your  
472 healthcare provider. You can ask your healthcare provider or pharmacist for information about  
473 Stimate<sup>®</sup> Nasal Spray that is written for health professionals. For more information, go to  
474 [www.stimate.com](http://www.stimate.com) or call CSL Behring Medical Affairs at 1-800-504-5434.

475

476 **What are the ingredients in Stimate<sup>®</sup> Nasal Spray?**

477

478 **Active ingredients:** desmopressin acetate

479 **Inactive ingredients:** sodium chloride, citric acid monohydrate, disodium phosphate dihydrate,  
480 benzalkonium chloride, purified water.

481

482

483 **Patient Instructions for Use**

484

485 Read these instructions carefully before you use your Stimate<sup>®</sup> Nasal Spray pump. The  
486 following instructions tell you how to prepare, or prime, your Stimate<sup>®</sup> Nasal Spray pump so that  
487 it is ready to use.

488

489 **Using your Stimate<sup>®</sup> Nasal Spray Pump**

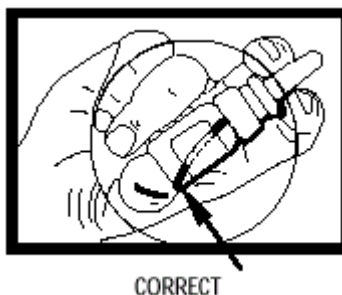
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491 **1.** Remove the protective cap.

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493 **2.** When using Stimate<sup>®</sup> Nasal Spray for the first time, the spray pump must be primed by  
494 pressing down on the ring at the top of the pump 4 times. Hold the spray tip away from  
495 your face and eyes. See Figure A.

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498 **Figure A**

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3. When primed, the Stimate<sup>®</sup> Nasal Spray pump delivers one dose of medicine each time it is pressed. For the right dose, tilt your Stimate<sup>®</sup> Nasal Spray pump so that the tube inside the spray pump draws the medicine up from the deepest part of the medicine inside the container. See Figures A and B.



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**Figure B**

4. Put the spray nozzle tip into your nostril and press the spray pump one time for one dose (150-micrograms). If two doses are prescribed, spray each nostril one time (for a dose of 300-micrograms).
5. When you finish using your Stimate<sup>®</sup> Nasal Spray, put the cap over the tip of the pump.
6. If Stimate<sup>®</sup> Nasal Spray has not been used for one week, you will need to prime the pump again by pressing one time, or until you see a fine mist.

519 Use this check-off chart to help you keep track of the number of sprays used. This will help  
520 make sure that you receive 25 sprays with each bottle of Stimate<sup>®</sup> Nasal Spray. There is extra  
521 medicine in the bottle to allow for priming. When using the chart to check off sprays, do not  
522 count the priming sprays.

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**Stimate<sup>®</sup> Nasal Spray  
25 Spray Check-off Chart**

①	②	③	④	⑤
⑥	⑦	⑧	⑨	⑩
⑪	⑫	⑬	⑭	⑮
⑯	⑰	⑱	⑲	⑳
㉑	㉒	㉓	㉔	㉕

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1. Keep this chart with your Stimate<sup>®</sup> Nasal Spray or put it someplace where you can easily get it.
2. Check off number 1 on the chart with your first dose of Stimate<sup>®</sup> Nasal Spray. Check off the numbers after each use of Stimate<sup>®</sup> Nasal Spray. If your healthcare provider prescribed a 2-spray dose (300-micrograms), then two numbers should be checked off.
3. Throw away the Stimate<sup>®</sup> Nasal Spray after 25 sprays.

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