

Understanding desmopressin: A guide for teenagers and young adults



What is desmopressin?

Desmopressin is a medication that is used to help treat bedwetting. Bedwetting in people who are over five years old is sometimes called enuresis or nocturnal enuresis. It is a medical condition, where the bladder empties during sleep, so the bed gets wet. Bedwetting is most common in younger children but can affect anyone of any age.

How does desmopressin work?

Vasopressin is a hormone that tells the kidneys to make less urine (wee). The body usually makes more vasopressin at night than it does during the day. Therefore, the kidneys make less urine during the night, so that the bladder can hold all the urine made during sleep. That is why many young people can go all night without needing to go to the toilet.

Some people do not produce enough vasopressin while they are asleep: they make almost as much urine during the night as they do during the day. Because of this their bladders become full before the morning. To stay dry the affected person needs to be able to wake up and go to the toilet. If they are not able to wake up to the full bladder signals, as is the case for many young people with bedwetting, their full bladder lets go and their bed gets wet. They stay asleep when this happens.

Making a large amount of urine at night is sometimes called nocturnal polyuria.

Desmopressin behaves like vasopressin. It tells the kidneys to make less urine during the night. For young people who respond well to desmopressin, the night-time urine production reduces to normal levels. Therefore, their bladder can hold all the urine made until the morning, so that they can stay dry while they sleep.

Desmopressin is available as a tablet, or a melt (Desmomelt®), or a liquid (Demovo®).

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How are the various types of desmopressin different?

The tablet version of desmopressin is similar to any other tablet. It needs to be swallowed with water. DesmoMelt® looks a bit like a tablet, but when it is put under the tongue it dissolves quickly. The desmopressin is then absorbed through the linings of the mouth and goes straight to the kidneys to start work. This means that more of the active part of the medicine is absorbed (known as enhanced bioavailability). Therefore, DesmoMelt® can be given in a lower dose than the tablet.

Demovo® is a concentrated liquid that many people find easier to swallow than a tablet. Only a small amount is needed (the dose is usually 0.5ml or 1ml). Like the melt it is flavourless and a lower dose is needed than with the tablet.

Is desmopressin suitable for everyone?

Desmopressin is suitable for anyone over 5 years of age and for adults who are less than 65 years old. You should not take desmopressin if you have cardiovascular (heart) disease or are taking diuretics (medications that help the kidneys produce more urine), if you have been diagnosed with high blood pressure, low levels of sodium (salt) in your blood, syndrome of inappropriate antidiuretic hormone secretion, or von Willebrand's disease type IIB.

You should not take desmopressin on any nights that you are not able to stop drinking for an hour before you have it and for eight hours afterwards.

Desmopressin is a medication that is not allowed by the World Anti Doping Agency, because it can affect the ability to detect other substances in your blood. Therefore, it may not be suitable for you if you are competing, or training to compete in national or international sporting competitions.

Should any special care be taken when using desmopressin?

Desmopressin may not be suitable for you if you have problems with your kidneys, or you have cystic fibrosis, or epilepsy. Ask your paediatrician

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(consultant) or GP if it is alright for you to have desmopressin before taking it, or ask your parent or carer to find out for you.

It is very important that anyone taking any form of desmopressin for bedwetting does not drink for one hour before taking desmopressin and for eight hours afterwards. This includes swallowing water while swimming. Therefore, you should not take desmopressin if you have drunk a large amount of fluid in the hour or two before bed, or if you have had alcohol before going to bed.

You should not take desmopressin if you are unwell with any illness, including diarrhoea, vomiting, or if you have a raised temperature.

Are there any side effects associated with desmopressin?

Desmopressin works by reducing the amount of urine your kidneys produce. If you drink a lot in the hour before taking desmopressin, the extra fluid will not be able to be passed out of your body. It will collect in the body causing fluid retention. This is sometimes called hyponatremia. Symptoms of hyponatremia include headache, feeling sick and vomiting. Hyponatremia can be a mild or a serious medical condition. You can avoid hyponatremia by not have anything to drink for an hour before and eight hours after taking desmopressin.

Other possible side effects of desmopressin include headache, stomach pain and feeling sick. Rarely, allergic reactions and emotional disorders including aggression have been reported.

If you think you may be experiencing any side effects, including any not listed, stop taking the desmopressin and talk to your parent, carer doctor, pharmacist or nurse.

Can I take desmopressin while I am taking other medicines?

If you are taking any other medicines, make sure you tell your doctor or nurse before having desmopressin.

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Medicines to be particularly careful about include:

- Tricyclic antidepressants
- Chlorpromazine
- Carbamazepine
- Loperimide (Imodium) and other medicines that slow bowel (gut) transit
- Non-steroidal anti-inflammatory drugs such as ibuprofen

All of these may increase the effect that desmopressin has. This means that they may reduce urine production more than with desmopressin on its own. This increases the risk of water retention and / or hyponatraemia.

What dose of desmopressin should I have?

Your doctor or nurse will discuss which formulation of desmopressin (tablet, melt or liquid) may be best for you. They will also tell you how much desmopressin you should have. Always follow their advice and check with them if you are not sure.

Desmopressin tablets come in 200mcg strength. The usual starting dose is 200mcg (one tablet). If you are still having some wetting at night a week after starting desmopressin tablets, you may be advised to increase the dose to two tablets (400mcg). This is the maximum dose.

The usual starting dose for the melts, DesmoMelt[®], is 120mcg. This is the equivalent dose to the 200mcg tablet. The melt should be placed under your tongue. It will dissolve quickly. As with the tablet, if you continue to have some bedwetting a week after starting DesmoMelt[®], you may be advised to increase the dose to 240mcg. This is the maximum dose for the melts.

DesmoMelt[®] comes in two strengths, 120mcg and 240mcg. You should never have more than a total of 240mcg per night.

The usual starting dose for the liquid, Demovo[®], is 180mcg, which is 0.5mls. This is the equivalent dose to the 200mcg tablet and the 120mcg melt. If you still have some wetting a week after starting Demovo[®] you may be advised to increase the dose to 360mcg, which is 1ml. This is the maximum dose. Demovo[®] comes with a special syringe in the packet with the bottle to help you measure out the correct amount.

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When should I take desmopressin?

You should take desmopressin at bedtime or up to an hour before you go to bed. It is important that you do not drink for an hour before taking desmopressin and for eight hours afterwards. Therefore, if you have it an hour before you go to bed, you need to stop drinking two hours before you go to bed.

If you forget to take the desmopressin, do not have a double dose and do not take it later if there are less than eight hours to you getting up the next day. Do not take it during the day.

The tablet and liquid form of desmopressin may work less well if you take it with food or shortly after you have eaten. Try not to eat for at least an hour before you take desmopressin.

How long can I take desmopressin for?

After 12 weeks of taking desmopressin, you should have a week without it. This is to see if you still need it or can stay dry without it. If you are wet for two or more nights in the week without desmopressin it can be restarted for a further 12 weeks. These 12 weekly cycles can continue for as long as necessary.

If you are dry in the week without the desmopressin, do not start taking it again: your body has learnt to keep you dry without it. Most people need to take desmopressin for 6 – 12 months (with a week-long break after every 12 weeks), but you can stay on it for longer if necessary and your doctor or nurse agrees.

If desmopressin does not work, you should talk to your doctor or nurse and they will discuss the options with you. You may need other treatment instead of, or at the same time as desmopressin. They might suggest you try a different formulation of desmopressin.

Where can I get more information about desmopressin?

There will be an information sheet in the box with the desmopressin. As with all medication it is important that you always read the information sheet and that you contact your health care professional if you have any questions or concerns.

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Your pharmacist, doctor, nurse or other healthcare professional will also be able to give you more information and advice.

Further advice

Always follow advice given to you by your doctor or nurse. Talk to them or ask your parent or carer to talk to them if you have any questions or concerns.

You may also contact the Bladder & Bowel UK confidential helpline via the web form at www.bbuk.org.uk/helpline-enquiries or Telephone: 0161 214 4591.

Related information

All the Bladder & Bowel UK information leaflets about children's bladder and bowel issues are available at www.bbuk.org.uk/children-young-people/children-resources

For further information about Bladder & Bowel UK services and resources visit our website at www.bbuk.org.uk

Further information

Find more information about child bladder and bowel health in our information library at www.bbuk.org.uk. You can also contact the [Bladder & Bowel UK confidential helpline](http://www.bbuk.org.uk/helpline-enquiries) (0161 214 4591).

For further advice on bladder and bowel problems speak to your GP or other healthcare professional.

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