

Patient information from BMJ

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Psychogenic polydipsia

Someone who has psychogenic polydipsia feels unusually thirsty and drinks fluids to the point where it can be dangerous. But this thirst happens for psychological reasons (it's "all in the mind"), and not because someone is actually dehydrated and needs fluids.

Psychogenic polydipsia is often a feature of mental-health conditions where people have trouble telling what is real from what is imagined. Drinking a lot of fluids can seem reassuring to people in those situations.

If you or someone you care for are affected by this condition, you can use our information to talk with your doctor about the best treatments.

What is psychogenic polydipsia?

Having polydipsia means that someone is extremely thirsty and drinks excessive amounts of fluid.

With psychogenic polydipsia (PPD), the cause of this thirst is psychological, not physical. This means that someone thinks they are thirsty and dehydrated when they are not.

Drinking too much water might sound harmless, but it can cause a serious problems including:

- Dangerously low levels of salt in your body. This is called **hyponatremia**. It can cause confusion, extreme tiredness, and changes in personality. Extremely low salt levels can cause seizures, coma, and even death
- **Water intoxication**. Having too much water in your body can cause swelling in the brain, which can lead to coma and even sudden death
- Loss of bladder control
- Swollen kidneys
- Kidney failure
- Heart failure, and
- Weak bones.

What causes psychogenic polydipsia (PPD)?

PPD tends to be caused by certain mental-health conditions or by anxiety. For example, the people most likely to be affected are people who have:

- Mental-health conditions that include issues with **psychosis**. Someone with psychosis is not always able to tell what is real from what is imagined. For example, people with psychosis often see and hear things that aren't there
- What doctors call **developmental disorders**, including **autism** and **Kleine-Levin syndrome**, a condition that can cause extreme changes in behavior
- Problems with anxiety. This can affect anyone, but it seems more common in middle-aged women who have what doctors call **anxiety disorders**
- Anorexia nervosa, and
- Personality disorders.

PPD, and the low-salt problems caused by PPD, also seem to be more common in people who smoke.

We're not sure why people with these conditions start to drink a lot of fluids. But it is possible that they somehow find it reassuring, or that they see it as a way of reducing stress. Some people might see it as a way of diluting the effects of their medications.

What are the symptoms?

The main symptoms of PPD are:

- Being unusually thirsty, and
- Drinking large amounts of water or other fluids.

The symptoms of hyponatremia (low salt levels) caused by PPD include:

- Headache
- Nausea
- Cramping
- Weak muscles that don't respond to physical stimulation, such as touch
- Strained or slurred speech
- Lethargy (feeling weak and tired)
- Confusion, and
- Seizures.

If salt levels become extremely low, it can cause coma and sudden death.

If you are being treated by a doctor who thinks that you are showing signs of PPD and hyponatremia, you might need to have urine and blood tests.

What treatments are available?

Short-term treatments

The longer-term aim of treatment for PPD is to treat the problem that's causing someone to think that they need to drink so much.

But the short-term problems need to be treated first. This means:

- Stopping the person from drinking too much fluid until their fluid and salt levels return to normal, and
- Treating their salt levels if they are too low.

Low salt levels can be treated with **saline** (weak salt water) given directly into a vein. But, because this means putting more fluid into the body, the person should be monitored closely to see that they're not given too much fluid.

If you are treated for PPD in this way, you might also be given medications called **diuretics**, to help you lose excess fluid quickly. These drugs make you urinate (pee) more than normal.

Longer-term treatments

Some people can be treated quickly simply with medications. For example, if someone is suffering from **psychosis**, the right **antipsychotic medications** should relieve the psychosis and the PPD.

But it's not always this simple. Some people's problems can't be easily treated with medications, and they need longer-term help to change their behavior.

Doctors use various longer-term methods to help people with PPD. Some of these methods are used together. These include:

- Giving rewards for not drinking too much
- Helping with ways to cope when someone feels the urge to drink a lot
- Encouraging the person to keep a diary of when and how much they drink, and why
- Discussing the fears and beliefs that make someone think they need more fluids, and
- Helping people to learn self-control. For example, someone might be given a reasonable amount of water to last them a day. They are then helped to understand how to make it last by drinking it steadily in small amounts, and by doing things to distract themselves when they feel the urge to drink to excess.

These treatments can take time, and some people need a lot of help to learn to control their fears and urges. People who continue to drink at dangerous levels might sometimes need to be confined to an area where they can't get access to fluids.

What to expect in the future

If you have had emergency treatment for PPD, your doctor will want to follow up with you to check if you need more help, especially if you suffer from psychosis that sometimes gets worse.

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If you live with or care for someone who has problems with PPD, it's important to keep an eye on how they are doing. If someone continues to drink too much fluid for a long period it can cause serious problems, including:

- Bladder damage and kidney failure
- Heart failure
- Weakened bones leading to fractures
- Loss of bladder control, and
- Coma and even sudden death caused by low salt.

If you are struggling with PPD yourself, or with someone you live with or care for, talk to your doctor about getting help.

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