

Is urine sterile? Do urine 'therapies' work? Experts debunk common pee myths

October 21 2022, by Christian Moro and Charlotte Phelps



Urine tests can identify a variety of health issues. Credit: Christian Moro, Author provided

Urine therapy (or urotherapy) is a [longstanding practice](#) based on the

concept that urine can be drunk, bathed in, or otherwise applied to bring good health or even heal the body of certain ailments.

Unusual as it may sound to most people, it's an idea that persists even today. And like most things of this nature, it has taken on a [life of its own online](#). But is there any evidence urine therapy works?

To cut to the chase, no. Urine is waste and should be left excreted from the body.

Early origins

Before modern medicine, various cultures had [innovative](#) ways to manage health. The early Egyptians, Chinese, Indians, [Aztecs](#) and Romans reportedly used urine as a treatment for various ailments, such as to heal battle wounds or [whiten teeth](#).

There was some logic to these practices. For example, without access to clean water, urine might be used to wash a wound. Or in the absence of a gas mask, a [urine-soaked rag](#) could be used to filter out nasties during a chlorine gas attack.

Historically, these uses were only justified in contexts where no medical alternative was available. Nonetheless, some continue to recommend using urine [for various ailments today](#).

With our current health and treatment options, there is no reason to engage with any form of urine treatment. And there is [no scientific evidence](#) drinking urine or engaging in any other urine therapy has benefits.

In all modern contexts, there are more hygienic and effective solutions than urine therapy—regardless of what ailment or problem is being

addressed.

If you're seeking a therapeutic benefit from one of the compounds found in urine, it's best to get this over a pharmacist's counter and not from a cup in the loo!

What is in urine?

Urine is excreted from the kidneys as they filter blood, keeping what the body needs and removing the waste as urine, which is [stored in the bladder](#) until we pee.

Urine is 95% water. The remaining ingredients include urea (2%) and creatinine (0.1%)—a breakdown product from muscle and protein metabolism—alongside trace elements of [various salts and proteins](#).

[Urea](#) is a safe organic compound, which occurs naturally when proteins are metabolised. Urea-based formulations can be found in skin and nail softening lotions, acting as an effective moisturiser and helping to improve the skin's [barrier function](#).

However, although urea is present in urine, its concentration is simply too low to offer any therapeutic benefit.

Apart from urea and creatinine, more than [3,000 different compounds](#) have been found in urine. This means, as we learn more about the [urinary system](#), future screening for a wide variety of health issues, including cancers, might be obtained through a simple [urine test](#).

Might urine therapies be harmful?

In some cases public interest in urine therapies has been so strong,

governments have had to ban proposed urine-based "[health drinks](#)".

The fact is excreted urine can be quite harmful. There are only a few ways the body can remove waste from its system, and this is done primarily through urine, faeces and sweat.

This means urine might contain environmental [toxins](#) and other nasties your body has worked hard to remove. Some medications are also excreted in urine, so drinking it can accumulate [toxic levels](#) of these drugs. In some cases urine can also have pathogenic bacteria that, if [ingested](#), can cause serious diarrhoea, nausea, vomiting, an upset stomach and infections.

And no, urinating on the site is *not* recommended for jellyfish stings. This has the potential to cause even more pain by aggravating the stingers and inducing them to release [more venom](#).

Even drinking urine in a survival situation isn't as helpful as it's often touted to be. Although it may make [some sense](#) to return fluid to your system, at the same time reintroducing excreted salts will be unhelpful for hydration.

Also, as dehydration sets in you won't be making much urine anyway, so drinking urine in a survival situation is unlikely to be a viable option.

Is urine 'sterile'?

In most cases only very low levels of bacteria are excreted in urine. But the idea urine might be sterile is [simply a myth](#). The word [sterile](#) means "completely clean and free from dirt and bacteria".

Our body is full of resident bacterial colonies that maintain our health and assist with general daily functions. This means [most](#) of our body is

not sterile, and the [bladder](#) is [no exception](#).

A high level of bacteria is usually associated with [urinary tract](#) infections. Nonetheless, there's an ever-growing [body of research](#) identifying all kinds of healthy bacteria living in our bladder, which can be excreted in the urine of healthy people.

Peeing in the shower is also a no-no, as urine can cause infections if it comes in contact with cuts or wounds on your legs. This practice can even make disorders such as [overactive bladder](#) or [incontinence](#) worse, by causing our brains to [associate](#) running water with the "need to pee". This particularly impacts females as their pelvic area anatomy just isn't designed to pee standing up.

While standing, the [muscles](#) may struggle to [contract and relax](#) properly, or even [slow the stream](#) of urine. This means the bladder may not be completely emptied and increases the chance of [infections](#).

The bottom line is there are no scientifically supported benefits for urine therapies. If you need a particular treatment, you should talk to your doctor rather than turning to a [urine](#)-based prospect.

If you [accidentally drink urine](#), call your local poisons information centre for advice.

This article is republished from [The Conversation](#) under a Creative Commons license. Read the [original article](#).

Provided by The Conversation

Citation: Is urine sterile? Do urine 'therapies' work? Experts debunk common pee myths (2022, October 21) retrieved 25 April 2024 from <https://medicalxpress.com/news/2022-10-urine-sterile->

therapies-experts-debunk.html

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.