



## Prevention of Urinary Stones with Hydration (PUSH): Design and Rationale of a Clinical Trial

### What did we want to learn?



Kidney stones can cause a lot of pain and are becoming more common. Drinking more water is one of the best ways to stop stones from coming back, but it is hard to drink the recommended amount.



Researchers wanted to know if using a special program that included a smart water bottle, reminders, coaching, and rewards would help people drink enough water to avoid getting new kidney stones over time.

### How did the study work?



People aged 12 and older who had kidney stones and low urine output joined the study. Everyone was given a smart water bottle to help track the amount of water they drank. People in the intervention group got extra help like water-drinking goals, reminders, coaching, and small rewards.

Other people in the control group got standard advice and care from their doctors. Researchers followed everyone for two years to see if there were any differences in new kidney stones between the two groups.



### Why is this study design unique?



PUSH is first clinical trial to test how consistently people with kidney stones drank water while in a special program designed to help them overcome common barriers.

It is also the first and largest adherence trial to study symptomatic stone recurrence (or whether a kidney stone comes back) as the main focus.

### How could this information help patients and care teams?

- Doctors may be able to use this program to better support patients in building healthy habits.
- Programs like this could help many people stay hydrated and avoid stones in the future.

Learn more about this study from the full research article:  
<https://pubmed.ncbi.nlm.nih.gov/41864748/>

