

## DILUTE DRUG SCREENS

Dilute drug screens occur when an individual drinks too much fluid/ liquid of any kind in a short period of time, usually in an effort to flush their system of alcohol or drugs.

We encourage everyone to drink at least 8-10, 8-ounce glasses of water each day to maintain a healthy body system. Your body will maintain homeostasis, an equilibrium, in which you take in fluids and excrete waste fluids in the urine according to your body's needs. This occurs normally in the absence of kidney disease.

Creatinine is a by-product of protein metabolism; any unused creatinine is dissolved in the urine as a waste product. It is easily measured in relationship to the amount of fluid in which it is dissolved. For drug screening purposes, there is no other reason to measure creatinine other than to be able to tell whether or not a person is trying to dilute their urine. The more fluid in urine, the less creatinine can be measured. The less fluid in urine, the more creatinine can be measured. The normal level of creatinine in urine ranges from 60 mg/dL to 300 mg/dL. A dilute urine sample means that the creatinine level is equal to or below 20 mg/dL. This also occurs normally in the absence of kidney disease. The creatinine levels can change daily, but most people will have a "normal" value range most of the time.

Eating extra protein, exercising, running have no significant effect on the creatinine level measured in urine due to the body's built-in equalizer, homeostasis. The only thing that affects a dilute sample is the amount of fluid taken in within a short period of time prior to providing the urine sample. If you are seeing results that show you are getting close to a dilute sample, try to stop drinking any fluids 2-4 hours prior to providing the sample. Then resume your normal fluid intake. You should not "hold" your urine for a long time before giving a sample. This is not good for your bladder and will not have a significant effect on urine dilution. Try to avoid more than 1-2 cups of tea per day since tea is a diuretic. In other words, it causes your body to make extra urine and may throw off your normal body balance if taken in excessive amounts. This can lead to a dilute urine sample. Avoid products that claim to "beat a drug test". These usually are nothing but a diuretic in disguise. If you have a medically diagnosed kidney disease you will need to bring proper documentation from your physician that states specifically why you might test with dilute urine specimens. This should be done prior to admission into the program and may be a reason to exclude you from participation in the program. If you have any questions or concerns, please discuss them with the court, your counselor, program manager, or program nurse, and your physician.

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**Participant Signature**

**Date**

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\*This document is based on Paul L. Cary's presentation "Selected Drug Testing Issues for Court-Mandated Testing."

## Frequently Asked Questions Regarding Dilute Specimens

### What is a dilute specimen?

Dilute specimens are urine samples that have a creatinine level of less than 20mg/dL.

### Okay, so what is Creatinine?

Creatinine (not to be confused with creatine) is a by-product of muscle metabolism. It is produced at a fairly steady rate throughout the day. Having a low concentration of creatinine in your urine is not normal.

**The most common method of specimen tampering is dilution.** Dilution is sometimes called flushing or water-loading, and it is a method promoted by “beat your drug test” websites and products. Diluting is a way to lower the concentration of drugs or alcohol in your system by making your urine more like water, measuring creatinine tells us how concentrated your urine is – whether it’s more like urine or more like water.

### It seems like we’re getting sanctioned for dilute specimens all the time. Is low creatinine really that abnormal?

Healthy people rarely produce specimens with creatinine levels below 20mg/dL. In one study of over 22,000 people, less than 1% had dilute specimens. The average creatinine level was 130mg/dL. In a setting like ours where people are randomly drug tested, dilutes are 10 times more common! Sounds a little suspicious, doesn’t it?

### But even if I get a dilute, if my test is negative, why should I be sanctioned?

To quote Paul Cary, the expert on this issue, “negative or ‘none detected’ results should never be interpreted as indicating no drug use (abstinence), because if, in fact, drugs were present, they probably could not be detected by the test... [A] creatinine level of less than 20mg/dL (associated with a drug test) is nearly always an attempt by the donor to avoid drug use detection regardless of how much liquid was consumed in order to achieve this result.”

### So what’s the bottom line?

If you get a dilute, we don’t know why or how your creatinine level got that low. It is YOUR RESPONSIBILITY to control what you put in your body; this includes monitoring your fluid intake and not drinking excessive quantities of water in a short amount of time. If you have questions about your creatinine level, contact Court staff, medical staff, or see your physician.

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