

"DILUTE SPECIMEN"

"Specimen Dilute" or "Dilute specimen" is reported when the urine sample being tested is not within acceptable limits for the urine acceptability criteria. The criterion used for judging whether a sample is dilute is based on that urine's creatinine and specific gravity levels. Urine creatinine is a substance that the human body produces via the liver and is deposited through the kidneys, coming out as the "yellowish" or "straw" colored liquid produced by the kidneys we call urine, and pooled in our natural holding area, the bladder. Creatinine is an easily measured compound that has a normal range of concentration in a random urine sample of around 20-400 mg/dl. Creatinine is tested in every urine sample that a drug screen is performed along with the appropriate drug classes. If the sample tested has a creatinine level below 20 mg/dl, then it is suspect and further testing is necessary to confirm that the sample could be "dilute" or "weaker" than normal. The laboratory then tests for Specific Gravity concentration, by a totally different testing procedure. Measuring Specific Gravity (SG) gives a indication of the amount or concentration of total dissolved materials in a liquid as compared to the amount of water in that sample. Normal random urines have a SG range of 1.0030-1.0200, with the lower the SG value the more dilute or less concentrated that solution or urine is. If the urinary creatinine is below 20 mg/dl and the SG is below 1.0030, then that sample is reported as "Specimen Dilute."

Samples that are reported as dilute may not give accurate drug testing results because the sample being tested has lower concentrations of not only the creatinine and SG, but also all other dissolved and/or deposited materials like drugs are at lower concentrations than normal. A good analogy of this principle is the following. If you take a teaspoon of salt, pour it into a very small glass, and then take another teaspoon of salt, pour it into a 55 gallon drum, fill the two containers with water. The small glass will taste like "sea water" and the 55 gallon drum will taste more like water because the water concentration of the small glass is far less than the 55 gallon drum. So it is with our human body. The more water we add or "ingest" the more water will be deposited through the kidneys and pooled into our "storage tank" the bladder. This causes the water content of the bladder to be higher than normal, "diluting or weakening" the concentrations of everything put there by body, including creatinine and drugs. The lower concentrations of the drug(s) due to the "weakness" or "diluteness" of the urine can then cause the sample to be "falsely Negative."

For the most part individuals will drink extra fluids, sometimes up to a gallon of water, before they come into a drug test to try to "flush" their system of the drugs to try to "fool" or pass the drug test. Others will drink or ingest herbal preparations or other "body cleansing" preparations to again try to "flush" their system out of potential "toxins." These are what we call "on purpose" ways to help try to pass a drug test. However there are times when the body is producing "too much water" and the body is trying to balance itself and the urine sample is dilute for a "physiological reason. This could be because of being Diabetic, sometimes during pregnancies, or via kidney problems. Also some prescribed medications like diuretics can cause a sample to be dilute. These types of issues need a Medical Review Officer (MRO) or other Medical Doctors opinion and/or physical exam to see if these are the causes.