

mA10, kidney stones **Name:**

Kidney stones are a common disease in both men and women. While most kidney stones can be passed without treatment, sometimes medication or medical procedures are necessary. Watch the videos and answer the following questions:

Video 1, How Do Kidney Stones Form? How Can We Prevent Them?

1. Kidney stones are aggregates of _____ enclosed in a matrix.
2. The composition of kidney stones can fall into several categories, which include _____, _____, struvite (magnesium ammonium phosphate), _____, and cystine (an oxidized dimer of the amino acid cysteine).
3. _____ is the most common class of kidney stone.
4. The critical size for a kidney stone is as small as _____ millimeters, which may be too large to pass through the ureter.
5. Common anatomical locations that a large kidney stone may become wedged in the urinary tract include _____, _____, and _____.
6. It is estimated that in the United States that _____% of men and _____% of women will have a kidney stone at some point in their lives. However, about 78% of the developed stones will pass without any surgical intervention.
7. _____ of stone-forming salts in the urine may be a factor in the development of kidney stones. This can be the driving force for crystal formation (precipitation).
8. _____ is one of the most important inhibitors of crystal formation.
9. _____, inadequate water intake, is a major risk factor for kidney stone formation, which may be why kidney stones are more common in hot climates.
10. SWL or _____ is a technique used for assisted (non-surgical) removal of kidney stones.

Video 2, Extracorporeal Shock Wave Lithotripsy

1. Extracorporeal shock wave lithotripsy is used for stones located _____ in the urinary tract. In general, these stones are too large to pass, or excessively painful to pass without treatment.
2. A _____ is a hollow plastic tube placed in the ureter between the kidney and the bladder. This is placed in the patient to prevent obstruction by large stone fragments.
3. Extracorporeal shock wave lithotripsy utilizes shock waves outside of the body which are _____ on the location of the stone.
4. Real-time X-ray images, also known as _____, are used to visualize and target the stone during the procedure.
5. The shock waves create pain for the patient, so some form of _____ is needed during the procedure such as a spinal tap or epidural.