Dr. Desai: Hello, and welcome to the Kaiser Permanente Health Cast. I’m your host, Kavin Desai, and in our studio today we have Dr. Michael Peterson who is with the Department of Surgery at Kaiser Permanente Hayward.

Dr. Peterson: Thanks for having me.

Dr. Desai: So Dr. Peterson is here to talk to us about gallbladder disease. We’ll just get to the very basics. Dr. Peterson, what exactly does the gallbladder do?

Dr. Peterson: I’m glad you asked that question. I’m very excited about gallbladders and gallbladder disease. This is probably our number one surgery here, at least within Kaiser Hayward and Fremont. The gallbladder is a thin-walled bag that sits up underneath the liver. And what it does is that it stores bile which is made by the liver. Bile is necessary to dissolve fats in the diet. So the liver manufactures bile. It drains done through a specialized tubing area into the intestine. The gallbladder stores the bile and concentrates it and then when you have a meal which has a fair amount of fat in it, the gallbladder gets a signal, it squeezes and forces the bile down so there is a lot extra.

Dr. Desai: And so what kind of problems could you have with your gallbladder?

Dr. Peterson: Well, one of the most common things that we see is that stones can form in the gallbladder. This is probably our number one problem that we see. When the gallbladder is storing the bile, it not only stores it, but concentrates it. So normally, it is a thin, runny liquid and turns to a thick slimy green goo. Most of the time there is no problem, but in certain families, certain genetic backgrounds, during the concentration process, stones form.

Dr. Desai: What kind of symptoms would this cause?

Dr. Peterson: That’s the most interesting. Some people can have gallstones and not have any symptoms whatsoever. So, in that case we usually recommend that if we find the gallstone by some other incidental test, we leave it alone. However, sometimes patients will get symptoms of abdominal pain, especially after eating, cramping or a knife-like colicky pain. Sometimes, it shoots to the back or up to the shoulder, sometimes associated with nausea or vomiting, fever in which case that can precipitate worse symptoms and usually an Emergency Room visit.

Dr. Desai: So you mentioned that there is some incidental test that can find gallstones. What is the typical way you diagnose them?

Dr. Peterson: Well, most of the time if you have a person who comes in who might have genetic background or has a family history of gallstones, or something about their
symptoms suggests it, the easiest thing we do is get an ultrasound. That is done in the X-ray Department. It usually has to be done fasting so that the gallbladder is full, and we can easily see the gallstones there. And so you have the pain, and you have the stones in the gallbladder, then that’s what you’ve got. Sometimes the gallstones are found on other exams such as CT scans or MRI. We used to do an old fashioned test called an oral cholecystogram, but we haven’t done that for a long time.

**Dr. Desai:** Now you mentioned something about the genetics of this stating that there are certain types of genetic backgrounds that might have it, what might that be?

**Dr. Peterson:** The most common one we see here in California are Mexican American, Native American Indians where the incidence of gallstones is quite high, some groups of Asians, but it can occur in a lot of genetic or just family trees. For example, my dad had to have his gallbladder out for gallstones, so perhaps it’s coming for me.

**Dr. Desai:** So let’s talk about treatments. What do you do if you have gallstones and you’re having symptoms?

**Dr. Peterson:** Kavin, you know what they say, if you’re a hammer the whole world looks like a nail. I’m a surgeon and gallstone surgery is what we do. About 15 years ago, we used to do open gallbladder surgeries where we’d make an opening under general anesthesia, take the gallbladder out and close it back up. Nowadays, the gold standard is laparoscopic cholecystectomy where we take the gallbladder out under general anesthesia through four or sometimes five poke holes in the abdomen.

**Dr. Desai:** Little tiny holes, not a big incision.

**Dr. Peterson:** Very small holes. We close up with dissolving stitches and the patient can go home a few hours after the surgery with minimal or only slight discomfort.

**Dr. Desai:** So you’re saying this is a same day surgery now?

**Dr. Peterson:** And it’s a lot of fun too!

**Dr. Desai:** Maybe for you.

**Dr. Peterson:** Yes.

**Dr. Desai:** So talk about maybe some of the nonsurgical treatments. Are there nonsurgical treatments for gallstones?

**Dr. Peterson:** You know, people are very, very interested in having some other alternative to surgery. Unfortunately, the other treatments don’t work as well. In the 1990s, they used to try high frequency shock wave treatments, same thing that they do for kidney stones, to blast the stones so that they blast them to dust, then the dust would then trickle down and get dissolved in the intestine. The problem is, in the patients they did
that, 50% of the stones came back within two years. We tried oral pills to try and dissolve the stones, injecting solvents in the gallbladder through needles. It works for a while, but the gallstones come right back. The best treatment is to get the gallbladder out. That’s the only place this concentration process occurs and people get along very well without the gallbladder. It seems to be one of those extra organs that we don’t really need.

**Dr. Desai:** Okay, so you’re saying basically if you have a symptomatic gallstone, it needs to come out?

**Dr. Peterson:** Yeah.

**Dr. Desai:** And laparoscopic surgery is the way to do it?

**Dr. Peterson:** That’s the way to do it. That’s the best.

**Dr. Desai:** Okay, so how do you decide when surgery is necessary?

**Dr. Peterson:** Most of the time, patients already come to us that clearly do have symptoms of right upper quadrant abdominal pain. Sometimes, it’s a little atypical, there are lab tests which are abnormal. There are some particular tests which are called liver function tests where the presence of gallbladder inflammation will sometimes cause elevation of these. Some people can have gallbladder disease and not have any gallstones. That’s harder to diagnose. But it may be related to difficulty of the gallbladder in drainage. Sometimes the drainage tube called the cystic duct which connects the gallbladder to the main liver drainage system, sometimes this small drainage duct kind of somewhat twists when the gallbladder gets the signal and compresses and squeezes, then there is a kinking and patients can have symptoms like the gallbladder is having an attack even though there are no stones. If we’re pretty sure that’s what the problem is, then taking the gallbladder out will certainly help that as well.

**Dr. Desai:** What other problems can the gallbladder have other than gallstones? You mentioned this kinking of the duct. Is that pretty much it? Or are there other things that can go wrong also?

**Dr. Peterson:** Well, the other thing that can occur is that sometimes if the stones are small enough or the cystic duct is large enough, the gallbladder can push small stones out of the gallbladder in the main liver drainage system where they can cause further trouble. The gallbladder drainage also drains in the intestine right at the same location as the pancreas and patients can have gallstone pancreatitis or inflammation of the pancreas because of the gallstone. That’s a very common cause for patients to come in the hospital with worsening abdominal pain. That can be diagnosed by laboratories, and the treatment is the same, once the pancreatitis subsides, take the gallbladder out.

**Dr. Desai:** I know we touched upon this, but if somebody doesn’t want to have surgery, would you try these other alternatives that you had mentioned?
**Dr. Peterson:** Yeah, that’s a real problem. We can try this. Usually, we would steer them to our Gastroenterology Department who have access and do the prescribing for some of the medications. One of the medications they use to try and dissolve the gallstones is something called Ursodeoxycholic acid. Ursodiol is I think the brand name. This is a medication which you have to take every day. You can’t miss it. Sometimes it can cause some liver abnormalities, and if you skip a day or skip a few days, the gallstones can again reform. So I haven’t found it that useful.

**Dr. Desai:** Since you had mentioned that the gallbladder is not really a necessary organ in modern humans, should we take them out beforehand?

**Dr. Peterson:** That’s another good question as well. Sometimes patients will come to us and say that they’ve got gallstones, they’re not bothering them, but they’re planning on making a long trip or going into the Peace Corps, going into a foreign country where there may not be modern medical care. We have to weigh carefully the risks of surgery compared to the benefits. For some patients who may have access to medical care, sometimes it is a good idea to wait. You know, not too many people want to have major surgery unless it’s truly, truly necessary.

**Dr. Desai:** As a final comment, what would you tell your patients that are worried about their gallbladders?

**Dr. Peterson:** Well, it’s normal to be nervous about surgery. In the past when I’ve had to have surgery, of course, I’ve been nervous as well, and that’s normal, to be expected. This is a routine surgery. It’s sort of like taking your car in to get a tune-up and oil change, it’s something we do every day. The recovery is quite quick after the surgery, especially the laparoscopic surgery, you’ll be in the hospital only for a few hours and you’ll probably go home with your family members.

**Dr. Desai:** Dr. Peterson, thanks for coming in today and talking about gallbladder disease. That was very informative.

**Dr. Peterson:** Thank you so much for having me.

**Dr. Desai:** Well, we’ve come to the end of another Kaiser Permanente Health Cast. I want to thank you for spending the time today with us to listen to our gallbladder Health Cast. If you have any questions or comments, please feel free to email us at castmaster@kphealthcast.org. We hope you can join us the next time for our next Health Cast, but until then always be on the lookout for better ways to Thrive.