

Episode 19 – Hep A & B

With Dr. Gia Tyson

Clay (00:00):

Welcome back to the wonderful world of Vax Matters. Diane, let's get this show on the road.

Diane (00:12):

Indeed, and on this episode, we're honing in on both hepatitis A and B to explore the origins and effects of these diseases as well as defenses against them. It's our pleasure to welcome, Dr. Gia Tyson. She joins the show to provide the expertise we need to cover the topic accurately. She's the head of hepatology at the Liver Center at Ochsner Health here in Baton Rouge. Welcome to the podcast, Doctor.

Dr. Tyson (00:41):

Thank you so much for having me. I'm excited about it.

Diane (00:44):

It is our privilege, and we want to begin basically with pretty much a two-part question. First of all, can you tell us what hepatitis is and what is the difference between hepatitis A and hepatitis B? We hear a lot about both of them, but we'd like to know the difference.

Dr. Tyson (01:04):

Sure. So in terms of hepatitis, hepatitis is a general term that means inflammation in the liver. And you can have inflammation in the liver from various causes, one of which is viral. So there could be various viruses that cause inflammation in the liver. One is hepatitis A and one is hepatitis B. They're both very different though. Hepatitis A is transmitted usually through what we consider like the fecal-oral route, meaning, that you can eat something bad or that's contaminated with hepatitis A. Then you can become infected and you can get sick from it.

Dr. Tyson (01:37):

But there are many people who are exposed to hepatitis A and they actually never know they had hepatitis A, until at some point later when they realize they're immune to hepatitis A without being vaccinated. Hepatitis B on the other hand, is transmitted primarily through sexual contact or blood-to-blood contact. So through sexual transmission or through injection drug use or blood transfusions. More blood transfusions before 1992. Uh, the blood is screened so well these days that usually there's a very, very low risk of hepatitis B transmission, um, in those instances.

Clay (02:11):

What are some symptoms and, and complications from each?

Dr. Tyson (02:15):

So both can present somewhat similarly because they cause acute or can cause acute inflammation in the liver, meaning, that immediately the liver starts to kind of get inflamed. Um, and so because of that people can have right upper quadrant pain. The liver sits on the right side of your body underneath the ribs. And so you can have pain in that area if you are acutely infected with hepatitis A and B. You can also feel very tired. Um, you can feel very lethargic. Um, some people, if it's a very

severe infection will in fact, start getting jaundice or have yellowing of their eyes, and yellowing of their skin.

Dr. Tyson (02:50):

And because people overall are not feeling well, they can often have nausea and vomiting when they have an acute hepatitis. Now, sometimes these symptoms are so mild that people don't even really know they have contracted hepatitis A or B. They may think they just have a little bit of like a cold. And then it passes, um, because with hepatitis A, it's typically a self-limiting infection, meaning, that usually people, uh, get the virus, they're exposed to it but then it goes away. It will not last and become chronic, whereas, hepatitis B, the vast majority of people who also are exposed to it will clear the virus on their own.

Dr. Tyson (03:25):

But there are around 5%, especially in adults who will go on to have chronic hepatitis B, meaning, that it stays with them and it doesn't go away. But in that acute period, you can have the symptoms of right upper quadrant pain, nausea, vomiting, um, just malaise, fatigue, overall not feeling well, if you're going to have any symptoms at all. But, uh, remember, there are many people who come in contact with Hep A and Hep B. And they don't have any symptoms that they're aware of. And they don't find out they had it, um, until later.

Diane (03:55):

That's incredible that you have something like that and you really possibly might not even know. Now, when you said at the beginning with our, our question that, that this is the ... That hepatitis is like an inflammation of the liver. So let's talk about the liver. What, what does the liver do for you and can you live without it?

Dr. Tyson (04:16):

Oh, my goodness. I love the liver so I am a liver specialist.

Diane (04:18):

(laughs)

Dr. Tyson (04:18):

It is like my-

Diane (04:18):

(laughs) I love the liver. Yeah.

Dr. Tyson (04:24):

... or- it is my organ of choice. And the reason I chose it was because it wasn't until third year of medical school, in medical school that I realized everything that the liver can do and how powerful of an organ it is. And when it's not working everything can be off.

Diane (04:36):

Hmm. Mm-hmm. Yeah.

Dr. Tyson (04:37):

So the liver's very involved with, um, kind of filtering out toxins out of the body, metabolizing, um, things that we eat. Helps with the nutritional breakdown of kind of the foods, cholesterol management, protein, um, metabolism. It helps with what we call glucose kind of homeostasis. When we need more glucose, it releases it. It helps to help, uh, utilize and store glucose. Um, it is a very powerful organ, um, really in the body, in terms of its detoxifying capabilities.

Dr. Tyson (05:05):

And when the liver does not work, it affects every other organ. So liver failure can result in confusion, what we call hepatic encephalopathy. It can result in kidney failure. It can result in pulmonary issues. It affects the cardiovascular system. Um, and it ultimately unfortunately can lead to death when the liver is not working. And unlike the kidneys, there is no, um, dialysis for the liver.

Dr. Tyson (05:30):

And that's why I found it so fascinating because these patients can be so sick. But as a transplant specialist, which is what I do, we can get them to transplant, get them an entire new organ, and take them from death's door to having a whole new lease on life. And it's just, it's just, uh, a true blessing and I'm really grateful, uh, for that type of work that I get to be involved in.

Diane (05:53):

So you have to have a liver. You, that, that-

Clay (05:55):

Yeah.

Diane (05:55):

... is a critical organ, correct.

Clay (05:57):

Gushing-

Dr. Tyson (05:58):

It is-

Clay (05:58):

... about the liver there.

Dr. Tyson (05:59):

It is critical.

Diane (06:01):

Yeah.

Clay (06:02):

Uh, can hepatitis cause liver cancer?

Dr. Tyson (06:06):

So, um, that's an interesting question. So, um, hepatitis in short, viral hepatitis, um, it can cause liver cancer or be associated with liver cancer, in particular, hepatitis B. Um, so A, no. Um, and it does not cause any chronic liver disease that would result in cancer. But hepatitis B, in and of itself, because it is a DNA virus, and we think it incorporates more into our genomic material in different mutations of how it works. Hepatitis B itself can lead to liver cancer, whereas traditionally we think of one of the biggest risk factors of liver cancer being cirrhosis of the liver.

Diane (06:42):

Mm-hmm.

Dr. Tyson (06:42):

So by the mechanism that let's say hepatitis B or hepatitis C, which is another viral hepatitis, they can cause scarring in the liver. That scarring over time can go from mild scarring to severe scarring that we call cirrhosis. And we know that cirrhosis is one of the biggest risk factors for liver cancer, but we call it hepatocellular carcinoma. But Hep B is unique in that, that virus itself can result in liver cancer, separate from the cirrhosis pathway, whereas typically when we think about hepatitis C, we think of the risk of liver cancer really being because the Hep C leads to cirrhosis. And the cirrhosis is what puts you at risk of liver cancer.

Diane (07:24):

So how many types of hepatitis are there? We've talked about A and B just for a second. You mentioned C. How far down does it go in the alphabet? (laughs)

Dr. Tyson (07:34):

Yes, the main ones we really kind of think about more commonly are A, B, C, D and E. Those are kind of the top five of the ones that we traditionally think about.

Clay (07:45):

Wow.

Dr. Tyson (07:46):

Hep C actually, um, for the longest time has been the, um, most common cause of need for liver transplantation and liver cancer in the country. So it has been associated with the majority of the morbidity and mortality as it relates to viral hepatitis in the United States, is really from hepatitis C. And, and the, um, the problem is not going away. I'm also, uh, the clinical network specialist on the state's initiative to eliminate hepatitis C, one of the first its, of its kind in our country.

Dr. Tyson (08:15):

And it's so important because before COVID, when you added the morbidity and mortality of all the other 60 infectious diseases behind Hep C, including HIV, um, they did not equal the morbidity and mortality of Hep C. So basically, Hep C is a huge problem in terms of causing liver disease, liver cirrhosis, liver failure-

Diane (08:35):

Hmm.

Dr. Tyson (08:35):

... need for transplantation, liver cancer, um, and death. Um, and so it's not going away. It's only increasing, in fact, in people who inject drugs typically account for three of four new cases of hepatitis C. Um, and so we really are trying to do, uh, a big effort in getting people screened and diagnosed. And ultimately treated because hepatitis C is actually curable.

Diane (08:58):

So it can be treated. It's curable you said and not just manageable. It can be cured.

Dr. Tyson (09:03):

It can be cured, whereas, hepatitis B, we do not typically think of as curable. Now, the nice thing is that the majority of people who are exposed to hepatitis B, at least as adults, will clear the virus on their own, where that's different with hepatitis C. Most people who are exposed to hepatitis C will not clear the virus on their own. They will go on to chronic infection. But at least we can get that chronic infection cured, whereas, with hepatitis B because as I said, it kind of more incorporates and to become kind of a part of us, it is very hard to cure it. The medicines are very effective so we can suppress it in our blood stream, but it's not thought to be cured.

Clay (09:39):

Hmm. Let's talk a little bit about the vaccines for it. Uh, when were they developed and approved?

Dr. Tyson (09:46):

Yeah. So there are vaccines hepatitis A and B. The vaccine for hepatitis A was probably approved around 1995. And the, and the vaccine for hepatitis B around, uh, 1986.

Clay (09:58):

Okay.

Dr. Tyson (09:58):

And so we have, uh, some newer vaccines for hepatitis B that are, are being used now that were, um, developed later. But the first two were, um, probably more around for hepatitis B, 19, uh, 86. And again for Hep A, around 1995.

Diane (10:12):

So the vaccines are only for Hep A and B?

Dr. Tyson (10:15):

Correct. We do not have a vaccine to hepatitis C, um, yet. Um, it would be great for us to have that but that has not been developed. And for hepatitis D, interestingly, D and B go together. So D cannot live on its own. It can only live in a host that has B.

Clay (10:31):

Hmm.

Dr. Tyson (10:32):

So essentially, if you're able to vaccinate against B, then you're protecting those individuals against D as well. And then E is also similar to A, in the sense that it's thought to be transmitted through the fecal-oral route and is self-limited. And does not cause chronic liver disease. So A and E can cause significant liver damage like in the acute setting but typically, um, your body gets rid of it on its own. And then the ones that we're kind of most concerned about are B and C. And fortunately, um, as I mentioned, D kind of goes with B. So if you can vaccinate against B, then you're protecting the community e- against va- of hepatitis D.

Clay (11:10):

Are, are there any risks, uh, associated with the vaccines?

Dr. Tyson (11:16):

Um, not beyond your traditional risks that you think of with vaccines, which is basically, you know, an allergic reaction. If someone's going to have a reaction to some component of the vaccine. That's unusual and very rare. Um, the more common reactions to vaccines will be at the site of injection, just pain, um, erythema or redness. Um, people may have a s- soreness there. Usually that goes away after a couple of days and not everyone will have that. Some people do have fever reactions to vaccines. Um, but those are kind of common and traditional across all vaccines, um, and those risks are usually very low.

Diane (11:48):

When you were talking about hepatitis B as well, that vaccine, that's given to newborns. Is that correct, there is a schedule, a vaccine schedule for babies?

Dr. Tyson (11:59):

Correct. So there's usually a universal vaccination of, um, infants or babies to hepatitis B. Um, typically as soon as they're born, they get that first injection. Um, usually it's a series of three shots. Um, you get it that, that first time-point, then one month later, and then six months later, um, at least especially in kids. And if you use a certain preparation of the Hep B vaccine, it's also three injections in adults.

Dr. Tyson (12:23):

But there's a newer, uh, vaccine that we're using more commonly now that is just two injections. And what's nice about that vaccine is it's at the initial time-point and then one month later, um, because you can imagine, especially for adults, if they're getting vaccinated, sometimes they sort of forget to come back and-

Diane (12:39):

Right.

Dr. Tyson (12:39):

... that slips through the window. Um, so it's nice with the newer vaccine that is just at the initial time period and then one month later. But in kids, it's usually the series of the three shots, um, at the initial time-point, one month, and then six months later.

Diane (12:53):

And so for the adults, it's a series of two. For children, it's a series of three. Can you get as an adult, can you get hepatitis, I'm going to assume B, can you get it more than once? Is it something that can recur?

Dr. Tyson (13:07):

Not commonly. Usually once you're exposed to hepatitis B, you're typically, um, protected. The antibodies do confer more protection, which is unlike hepatitis C, whereas you could get exposed to hepatitis C and even we could treat you and cure you. But if you continue with injection drug use or any higher risk behaviors, you can get reinfected with hepatitis C. We don't commonly think about that in terms of hepatitis B.

Clay (13:32):

Are you having success, or do you think this subject is having success penetrating into poorer communities and rural areas to make them understand the importance of early vaccin- uh, early vaccinations for children, staying on schedule with vaccinations, and also for young adults as well?

Dr. Tyson (13:51):

Um, I mean, the good thing is n- now, it should be permeating, you know, with the help or pediatricians-

Clay (13:56):

Mm-hmm.

Dr. Tyson (13:56):

... 'cause it's pretty much standard that this is what's offered.

Clay (13:59):

Yeah.

Dr. Tyson (13:59):

Um, unlike in, kind of in my generation. I guess I shouldn't tell my age, but I don't mind. Um, you know, like being born in 1979, um, that-

Diane (14:06):

Oh, gosh. You're a kid. Thanks. (laughs)

Dr. Tyson (14:08):

(laughs)

Clay (14:11):

(laughs)

Dr. Tyson (14:11):

Not quite but, you know, if you were born in 1979, it wasn't universal that people had to get the Hep B vaccine so we have some work to do on people who are kind of more in my age cohort-

Clay (14:20):

Mm-hmm.

Dr. Tyson (14:20):

... whereas, um, unlike myself, more malen- millennials and certainly the Gen Zers it was standard of practice that they were or offered vaccination and should have been vaccinated against hepatitis B. And the recommendation is also that kids be vaccinated against hepatitis A. Um, and so that should be more of the standard of care, especially now, than it was before, which is why we still have other people who are getting vaccinated as adults, just-

Clay (14:43):

Mm-hmm.

Dr. Tyson (14:43):

... because it wasn't the practice when they were born to do universal vaccinations.

Diane (14:47):

And the vaccines they're effective? Do you see, uh, a change?

Dr. Tyson (14:53):

Oh, yes. I mean, vaccines just historically for just about everything have been tremendously effective in changing the public health, really landscape, um, and people's survival. And that's certainly the case, uh, for hepatitis A and hepatitis B, especially in kids because, um, you know, we don't have it as endemic here in the U.S. in terms of hepatitis B with, uh, mo- mother to child transmission as it is in more Asian countries. But we do know that when kids are exposed to hepatitis B, they're more likely to have chronic infection and not get rid of it.

Dr. Tyson (15:22):

So it's the reverse of what I just told you about adults. Adults, when we get it, we tend to get rid of it. But if you think about kids, when they get it, they don't tend to get rid of it. They tend to keep it, so a vaccination in them is especially important to prevent them from developing a chronic infection, that as I mentioned can be associated with cancer, um, liver failure, transplant, death, et cetera.

Dr. Tyson (15:43):

Um, and the vaccines are very effective, so for hep- hepatitis A, um, it's even more effective than hepatitis B, in the sense that we think most people who are vaccinated, around 95% will develop antibodies 'cause that's what you want to know first as evidence that the vaccine has taken, is that you have antibodies against hepatitis A.

Dr. Tyson (16:00):

And then we know that even 95% of those who are exposed to hepatitis A then will not have, um, and infection. Will not become infected or have a very mild case of infection, whereas, with hepatitis B, we think about, you know, 80, let's say, maybe actually about 90% probably people of hepatitis B will have antibodies so-

Diane (16:17):

Mm-hmm.

Dr. Tyson (16:18):

... showing that they have protection. And then around 80 to 100% of those will be protected against hepatitis B infection or certainly have a very, uh, mild case of it.

Clay (16:27):

Can you reiterate why it is so important for babies to be vaccinated or, or for people to be vaccinated so early?

Dr. Tyson (16:35):

Yes. It's important, um, to be vaccinated early because, um, we know that when kids or younger, um, individuals are infected with hepatitis B, they're less likely to get rid of the virus on their own.

Clay (16:48):

Hmm.

Dr. Tyson (16:48):

And so puts them that risk for having more chronic infection. And certainly, we've seen the problems with hepatitis B as evidence in Asian countries where it's more endemic. And the large amount of individuals that have liver cancer as a result of Hep B, um, or liver failure. And we just don't have that in the United States. Um, and so vaccination has been, uh, an important part of that story. Not the whole part but an important part of that story. And the same thing when it comes to hepatitis C because this one is transmitted fecal-orally.

Dr. Tyson (17:16):

You can imagine we've had different outbreaks and in fact, there was a strawberry outbreak not that long ago. Um, and so obviously when people are protected, even if there is an outbreak and you've been vaccinated, you're less likely to become infected or have a more milder case if you are infected. And that's one, um, where, you know, you don't have to have a particular risk factor, um, to be at risk for hepatitis A. It could just be in some contaminated food.

Diane (17:40):

You know, I think that some people sometimes get confused when talking to a health-care professional or the, the wording is kind of hard for them to understand. When you talk about something that's acute and something that is chronic, two completely different definitions. And we've been, we've been talking about it. You've been talking about things that are acute and chronic. What is, what is the difference when you use those terms?

Dr. Tyson (18:07):

Yeah. So acute like from a simple perspective, let's think about time course. So something that's acute is something that you've gotten. You may have it and it's within let's say, the first six months of you having it. That's in the acute kind of setting. In the acute setting, you may or may not have symptoms from hepatitis A or B but typically, within six months if not even shorter the hepatitis A will go away because it's self-limiting.

Dr. Tyson (18:32):

It doesn't stay with you. It doesn't go on past a certain time period. For hepatitis B, when we know someone has most recently been exposed to the virus, they're in that, what we consider that acute setting. So, so from time zero to six months where they've just gotten hepatitis B. We're waiting to see if after the six months they will go on to continue-

Diane (18:52):

Hmm.

Dr. Tyson (18:52):

... to have the Hep B and now they're in kind of a more chronic time period, meaning, that the virus is unlikely going away. And now, it can cause more damage over time. So simply speaking, you can think about kind of acute versus chronic in terms of timing and how long you have something. How long you will have it. When it's acute, it's in that most immediate exposure.

Clay (19:14):

Mm-hmm.

Dr. Tyson (19:14):

You most recently got in touch or contacted the virus, whether it's A, B, or C in that acute period. And it could be days, weeks, um, but once you get out to more like months-time period and if you still have the virus, in the case of hepatitis B and C, now it's becoming more of a chronic disease-

Clay (19:32):

Hmm.

Dr. Tyson (19:32):

... that can cause more damage over time.

Clay (19:36):

You mentioned earlier about the, not needing a vaccine for I think D because or, or was it E that can't live without B?

Dr. Tyson (19:45):

It's D. So remember-

Clay (19:46):

D, that's right, D-

Dr. Tyson (19:47):

... D, D 'cause they're hard to kind of say like-

Clay (19:49):

That's, that's right. (laughs)

Diane (19:50):

Yeah.

Dr. Tyson (19:50):

... D and B kind of sound like the same. Yeah, they go together.

Clay (19:53):

S- so you wouldn't need a vaccine for D. And then we've talked about A and C. What of the, of the vaccines that don't exist that we need, where are we in the process of developing it?

Dr. Tyson (20:05):

Oh, it's not clear. I'm not sure where we are right now with hepatitis C. Certainly obviously it has been tried-

Clay (20:10):

Mm-hmm.

Dr. Tyson (20:11):

... as it's been the most, um, you know, dangerous virus here in the United States. And we've just had a lot of trouble getting, uh, a vaccine for it. So it's not clear to me that we have a vaccine for hepatitis C on the horizon. But the good part of that or the flip side is that a lot of work has been going into making Hep C curable, whereas, if we look at about five to 10 years ago, hepatitis C was not easy to cure. Around 50% of people who had hepatitis C with the older medicines, what we call the interferon-based therapies, which were injections. Sometimes other pills you had to take called ribavirin, they have a lot of side effects only from anywhere from a 30 to 50% cure.

Dr. Tyson (20:49):

It was tough so now you have a disease that's ... It has a lot of morbidity and mortality, so causes a lot of disease, damage, death. Um, but it doesn't have a vaccine and it doesn't have a cure. Well, certainly people tried in the efforts of vaccine development, and it just hasn't panned out. But then we kept trying on the cure side. And so in the last five to 10 years we now have medications that are all oral regimens, which we call the directly acting antivirals or the DAAs that target specific machinery that the Hep C needs to replicate.

Dr. Tyson (21:21):

So they're highly effective. Now, 95, 98% of people are getting cured with a very favorable side effect profile and so even though we don't have a vaccine at least now we have a virus that we can cure 98% of the time, meaning, that if you get it, it's not as concerning that it may be the death sentence that it was before. If that makes sense? So it makes-

Clay (21:45):

It does.

Dr. Tyson (21:46):

... it, it would be nice to have a vaccine, but it makes the need for a vaccine a little bit less-

Clay (21:50):

Okay.

Dr. Tyson (21:50):

... because Hep C doesn't typically the, um, isn't typically aggressive I guess in that acute period that we worry it's going to cause a lot of liver failure immediately. We m- more, worry more about the long-term complications of hepatitis C.

Diane (22:06):

Well, with that in mind, you're talking about the vaccines and what can be given and what can't, is there anyone who should not get a hepatitis vaccination?

Dr. Tyson (22:17):

The only time ... This is general for vaccines in general, not just Hep v- vaccines. It's just if you know you have an allergic reaction to some component of the vaccines. So like some may have yeast or nut or, you know, latex, you know, a- and some of those now with the medical, um, electronic medical record, they'll kind of give you warnings about that. But th- those are very few and far between. But if someone knows that they've had issues in terms of allergic reactions to vaccines, that's really the only consideration.

Dr. Tyson (22:45):

Otherwise, um, it's highly recommended that everyone get vaccinated and certainly we want to make sure people that are at highest risk in our communities, those who have comorbid conditions, obesity, diabetes, you know, liver disease, um, individuals who are immunocompromised, or immunosuppressed, they certainly need to make sure that they're frontline of being vaccinated.

Clay (23:05):

You know, the, the discussion about vaccines has gained so much more prominence in this post-COVID, uh, 19 reality and people ... There are the anti-vaxxers out there who choose not to do this. So for the people listening, speak to how effective this vaccine is in dealing with hepatitis.

Dr. Tyson (23:27):

So both the hepatitis A and B vaccines are highly, highly effective and also very, very safe. So these are like dead or inactive kind of proteins of the hepatitis A virus or the hepatitis B virus. So we're just giving you a small component-

Clay (23:45):

Mm-hmm.

Dr. Tyson (23:45):

... uh, or protein of that virus. And then your body generates an immune response to that, that like as I mentioned, you know, over 90% of the time will give you the antibodies that you need, so if you're exposed to the virus, you can fight it off. That is key because with hepatitis A, especially you can have pretty severe acute reactions that can result in liver failure and need for liver transplantation. Um, and so you want to try to avoid that because there's also no treatment, um, for hepatitis A.

Clay (24:13):

Hmm.

Dr. Tyson (24:13):

So it's not like if you get it, then we can say, "Okay. Well, we'll just give you a medicine for it." As I mentioned with hepatitis C, we don't ha- really have that. Um, and so you don't want to kind of roll the dice that if you get it, you might do well getting through it, especially not those who are immunocompromised or the sicker, um, people in our community, in terms of their medical issues. Um, same thing with hepatitis B. Um, now, like I mentioned to you, we do have treatments for hepatitis B that are very effective. But in fact, I have seen someone and also recently that had to be transplanted, um, for acute hepatitis B infection. And so-

Clay (24:48):

Wow.

Dr. Tyson (24:48):

... um, you know, these viruses can cause significant complications both as we mentioned in the acute setting, meaning, that not long after you've been exposed to them, the, uh, liver can become overwhelmed. And stop working and you could need a transplant. But then also from hepatitis B, you could be putting yourself at risk for liver cancer, cirrhosis, um, which is stad- end-stage, uh, fibrosis of the liver, along with liver failure, need for transplantation, and then unfortunately, um, death.

Diane (25:17):

One of the symptoms when we were talking about problems with the liver is jaundice, is that one of the symptoms too?

Clay (25:25):

Mm-hmm.

Dr. Tyson (25:25):

It can be. So that's one thing that I mentioned in, in the acute setting. But not-

Diane (25:29):

Okay, okay.

Dr. Tyson (25:29):

... everyone's going to have this because-

Diane (25:31):

Yeah.

Dr. Tyson (25:31):

... there are a number of people who when they're infected with Hep A and B, they just don't, (laughs) they don't have symptoms. They don't.

Diane (25:37):

Hmm.

Dr. Tyson (25:37):

Or not symptoms that they would notice. So in severe cases-

Diane (25:40):

Don't recognize, yeah.

Dr. Tyson (25:40):

... yes. When there is severe inflammation in the liver, then the liver is not really able to work as well. And the liver is very important in processing, um, bile. And creating bilirubin and, and that's what kind of creates the jaundice, is when your bilirubin becomes elevated. So that definitely can happen in more of the acute settings. You also see jaundice in the chronic setting. So when someone has had hepatitis B or C for years and now they're cirrhotic. And now, the cirrhotic liver is not working well.

Clay (26:11):

Mm-hmm.

Dr. Tyson (26:11):

Then those individuals can also become jaundiced or have yellowing of the eyes. And yellowing of the skin in that setting as well.

Diane (26:18):

Yes. That's what I was thinking of the skin-

Clay (26:20):

Yeah.

Diane (26:20):

... or of the eyes-

Clay (26:21):

So-

Diane (26:21):

... with the jaundice.

Clay (26:22):

... so I know you have discussions with colleagues of yours across the country as it relates to the various, uh, forms of hepatitis. On a scale of one to 10, 10, being we completely get it, where are we on understanding the importance of hepatitis and, and doing what we need to do as a public to either get vax- vaccinated or be safe, uh, against it?

Dr. Tyson (26:45):

I mean, I'm going to say anything below five is not good.

Clay (26:48):

Yes.

Dr. Tyson (26:48):

But just limits like not good versus good.

Clay (26:51):

Okay.

Dr. Tyson (26:52):

We're kind of on the not good about it.

Clay (26:55):

Wow.

Diane (26:55):

Yeah.

Dr. Tyson (26:57):

Um, and I think and that's, and that's a problem. I think it's just been education. What I see as some of the challenges is that when HIV came on the scene, it came on the scene just with a force-

Clay (27:06):

Mm-hmm.

Dr. Tyson (27:07):

... right? When people got HIV, we saw AIDS, we saw the consumption. We saw the devastation. We saw the death in an immediate way and so a lot of resources went into addressing HIV.

Clay (27:18):

Yeah.

Dr. Tyson (27:19):

And so as a result, now people are very aware of that. We have education around it. Um, the number of cases of HIV has typically gone down in most parts of the country. Medications have only gotten better, whereas, with hepatitis C, in particular, and even sometimes with B because people may not have symptoms when they first get it, people don't think about it as a problem. But it is a problem. It's just that those problems may not arise for 20 to 30 years.

Clay (27:46):

Mm-hmm.

Dr. Tyson (27:47):

And so when you have that kind of a delay, people get somewhat complacent. And, and there just hasn't been as much effort put into it. We do know that the number of cases are increasing with the opioid epidemic and with people who inject drugs. We're having continued issues with people getting infected with both hepatitis B and especially C. But again, when you look at that population of individuals, not as much attention may be focused on prevention, um, when it's affecting a certain, you know, group of, of, of patients or people in our community.

Dr. Tyson (28:18):

And so I think a number of those, um, things I've elucidated have resulted in us not putting, um, as a whole, as a country, as much of an effort as we should, um, on Hep C elimination. But, um, states like ours and there are others who do recognize hepatitis C as a problem. We understand that it's only growing and not going away. And we do know that it's associated with a lot of morbidity and a lot of mortality. We know that then it comes with a lot of costs as well.

Dr. Tyson (28:45):

Um, it's very expensive to take care of patients, um, who don't have, uh, their liver working well, that have liver failure. Um, and so there's a lot of reasons why we should be focusing on eliminating hepatitis C. I'm very proud that in Louisiana, we're one of the first states, if not I think really the first state to put forward a statewide elimination plan, where we have, um, a multipronged approach to making sure that, um, patients are educated. That screening and a cure is available.

Dr. Tyson (29:14):

That, um, primary providers know that we are no longer doing a risk-factor-based screening for hepatitis C. So no longer should people be going to their doctors and only being tested if they had a history of injection drug use or a blood transfusion. Or any type of drug use whatsoever. The new recommendations as of 2020, is that everyone receive one-time screening for hepatitis C if you're 18 years or older. So it's now opt-out screening. You know, so that message still has not permeated through, um, to everyone.

Dr. Tyson (29:47):

There are a lot of people who still don't know that hepatitis C is curable. There are a lot of people, uh, that don't know that we're using the newer medications that are more effective without a lot of side effects. They're still kind of traumatized by the interferon, um, based days for hepatitis C. So we have a lot more education to do, um, around hepatitis C because it's still thought that, you know, maybe anywhere from, um, 30 to 50% of people, um, living with hepatitis C don't even know that they have-

Diane (30:15):

Hmm.

Dr. Tyson (30:15):

... hepatitis C. Um, they haven't been-

Clay (30:19):

You said 30 to 50?

Dr. Tyson (30:19):
... diagnosed.

Clay (30:19):
You said 30 to 50?

Dr. Tyson (30:19):
Yeah. At one point it was 50%.

Clay (30:21):
Wow.

Dr. Tyson (30:22):
I think it's probably better than that but, yeah. It was around 50% of people, um, who are diagnosed with hepatitis C don't even know that they have hepatitis C.

Clay (30:29):
Wow. Wow.

Dr. Tyson (30:30):
And even those diagnosed, um, it used to be like around only 10% were treated. So even those diagnosed still weren't being treated and again, I think part of that goes to the fact that for so long hepatitis C has been seen as kind of like a more d- dormant-type virus. But it's not. It, it can be doing things and causing damage. But it's just that people can be living their normal lives before they get very sick from it.

Diane (30:53):
And sometimes out of sight, out of mind.

Clay (30:55):
Yeah.

Diane (30:55):
You, you don't even think about it-

Clay (30:56):
Right.

Diane (30:56):
... but now, you know, Clay, when you were talking about the, the after-COVID-

Clay (31:01):
Mm-hmm.

Diane (31:01):

... situation and, and, Doctor, we're all, I think so many people are now very much more or hopefully more proactive-

Clay (31:08):

Right.

Diane (31:08):

... in their health care. As you said, finally Louisiana might get a gold star-

Clay (31:12):

Right.

Diane (31:12):

... next to our name for, uh, for, you know, getting more information out. But I, I have to tell you, I know you said you love the liver.

Clay (31:19):

Yeah.

Diane (31:19):

I don't think that's an organ that a (laughs) lot of people think about. We think about, you know, kidneys and this and that. And-

Clay (31:24):

Yeah.

Diane (31:25):

... so, so just, you know, in our, in our waning moments-

Clay (31:28):

Yeah.

Diane (31:28):

... of our podcast, how do we keep our liver healthy? What do we need to do so that we can put a shining (laughs) star, you know, a little star next to our liver say, "We did everything right."?

Clay (31:37):

Mm-hmm.

Diane (31:37):

We're not going to do anything that's going to harm this critical organ in our bodies that we take for granted.

Clay (31:43):

Yeah.

Dr. Tyson (31:44):

Yeah. It's very, very important and this question is relevant to everyone in our society. And that's the trouble with liver disease. Too much liver disease unfortunately has been stigmatized. Stigmatized to alcohol use. Stigmatized to injection drug use. That is not the case. There are many people with liver disease for different reasons. And a growing cause of liver disease is nonalcoholic fatty liver disease.

Clay (32:08):

Wow.

Dr. Tyson (32:09):

So one of the best things that you can do for your health is recognize that nonalcoholic fatty liver disease exists and that is most likely in people who have obesity or overweight, have diabetes or insulin resistance, and/or cholesterol issues. It's what I call the trifecta. So if you're overweight, which we know-

Diane (32:28):

Hmm.

Dr. Tyson (32:29):

... 30% of the population has fatty liver disease, um, even a larger percentage of that is in fact, overweight or has insulin resistance or, um, some type of dyslipidemia, cholesterol triglyceride issues, you're at risk for fatty liver disease. That fat in the liver can cause inflammation that we call steatohepatitis. Steato is fat, hepatitis inflammation. That can cause scarring in liver disease such as cirrhosis, liver cancer, all the things that I've discussed. The same thing with the viruses you can get from fatty liver.

Dr. Tyson (33:00):

So what can we do to keep our liver healthy? In that sense, make sure that you're working on weight management. Um, having a healthy, well-balanced diet, incorporating exercise. Making sure your blood sugars are controlled. Making sure your cholesterol and triglycerides are controlled. All of these are very important in liver health, and they have nothing to do what we typically think about in terms of alcohol and drug use. Then as we've been discussing for the majority of this podcast, making sure that you're protected against the (laughs) viral hepatitis that we can protect against, which are hepatitis A and B.

Dr. Tyson (33:34):

Even though we can't protect against C, the thing that you can do to keep yourself protected and safe is make sure that you're screened. Get tested. Ask your doctor. It should be covered because it's a universal recommendation that everyone be screened for hepatitis C who's an adult. So that's something that you can do to really keep yourself, um, protected.

Dr. Tyson (33:55):

And then of course, when it comes to alcohol, in our great state, you know, of Louisiana, you have to recognize that even though you, you might not have a problem with alcohol, you still may be in my office needing a liver transplant because you still drink too much on a regular basis. And women, for better or worse, we actually cannot tolerate as much alcohol as men, so for women it should be no, no more than one standard drink a day or really three or four in a setting, otherwise it's considered binge drinking.

Clay (34:26):

Mm-hmm.

Dr. Tyson (34:26):

And then for men, it should be no more than two standard drinks in a day. Um, and so as much as we can make sure that we're drinking alcohol in moderation, then that is also something else that can protect our liver.

Clay (34:38):

So much great information. Doc, before we wrap up is there anything that we did not cover that you want to express before we close this episode?

Dr. Tyson (34:47):

I think we really covered it all. I mean, the biggest thing I'd love people to know is just that your liver is very important. And as we just summed it up, there are a lot of things that you can do to keep your liver healthy. The same things that you need to do to keep all your organs healthy. Eat well, moderation, exercise, follow-up with your doctors on a regular basis, and most importantly, be an advocate for yourself.

Dr. Tyson (35:09):

So make sure that you've been vaccinated against hepatitis A and B. If you're not sure, your doctor can check some tests to see if you have antibodies to hepatitis A and B. You can ask them to do that and if you're not protected then get the vaccine. And make sure that you're being screened for hepatitis C infection.

Clay (35:28):

Fantastic. Doctor-

Diane (35:30):

Clay, I think we, I think we need a bumper sticker that says, "Love your liver."

Clay (35:33):

(laughs)

Diane (35:33):

How about that, Dr. Tyson?

Dr. Tyson (35:35):

Love your liver like I do.

Diane (35:36):

(laughs) Yes, indeed.

Clay (35:38):

Listen I, I think I could make that happen.

Diane (35:39):

Well, he knows people who knows people. Thank you, Dr. Tyson. You were great. We really appreciate you breaking everything down so our listeners today can understand the importance of that organ that does so much for our body that we don't even realize.

Dr. Tyson (35:54):

Yeah. Well, thank you so much for having me. I really appreciate it.

Clay (35:57):

All right. Thank you, Dr. Tyson and thank you, to our listeners for continuing to tune into the show. Come back for more in a couple of weeks.