In this lesson today we are going to discuss the types and structure of joints.

So, joints are areas of contacts between bones in your body. And in your body you have many, many different joints that connect bones within your body. And ligaments are a type of dense connective tissue that connects the bones at those joints. And it helps to stabilize the joints as well. So, we're going to take a look at the three types of joints in your body.

One type is synovial joints. And synovial joints are the most common type of joint in your body. And they contain a cavity that's filled with a fluid called synovial fluid that separates the bones. And synovial joints allow for wide ranges of motion. So you get the most movement from synovial joints.

So, here's an example of a synovial joint-- this is our knee joint. So, you'll notice we have our femur, the bones of the lower leg, and then our patella bone. And this is what actually makes up your knee cap, right here. So, we have the muscles, and then we have ligaments that help to attach the muscles to the bone to help, again, to stabilize that bone and connect the bones at the joint.

So, we have a wide range of motion with this type of joint, as I mentioned before. So you're able to flex and extend your knee and it allows for that motion. This type of joint allows for that type of motion.

Another type of joint that we have is a fibrous joint. So, a fibrous joint there is no cavity between the bones. So remember, for synovial joints we have this cavity filled with synovial fluid. In a fibrous joint there is no cavity in between those bones. And the bones are connected by a connective tissue that doesn't allow for very much movement.

So, an example of fibrous joints would be the joints in your skull. So, your skull is made up of over a dozen type of bones but those bones are connected by fibrous joints. So, you have several of them you can see here. So, obviously you know that the bones in your skull don't have a lot of movement. You can't really move those around. They're connected by a joint, but that joint does not allow for much movement.

And this joint is actually called a suture. So, that area of contact between the different bones of your skull is a fibrous joint but we refer to them as sutures in your skull.

Cartilaginous joints are the third category of joints. So, cartilaginous joints are a type of joint where cartilage will fill the space between bones. So you don't have as much movement as you would in a synovial joint, but there is slight movement. Not much, but slight.

So, an example would be the bones in your spine. So, we have the bones of your spine and in between each of those we have these little pads of cartilage. So, it just eliminates some of the friction between the bones, but also allows for a slight bit of movement.

So, we're gonna take a look at synovial joints a little bit more depth and discuss the various types of movement or motion that's allowed by synovial joints.

So as I mentioned, we get a wide range of motion from this type of joint. So, flexing and extending are a type of motion that this type of joint allows. So, kind of referring back to your knee-- you can bend your knee and straighten it, you can extend it and flex it, because of that synovial joint.

Synovial joints also allow for rotation. So, you can move your arm in a big circle, you can rotate it, because of that type of joint. It allows for supination and pronation, which basically is a movement that can occur in your arm.

So, if my arm is down, it's pronated. And then I can supinate it. OK? So, pronation, supination. It's the way that I'm allowed to move my hand like this. And that is due to a synovial joint.

It also allows for gliding. So, I can wave my hand back and forth as the joints in my wrist allow for this gliding motion. OK? It's a synovial joint.

And it also allows for abduction and adduction. So, if you put your hand down, straight down by your side, and you lift it straight up you would be abducting it. And then if you lower back down to your side you would be adducting it. So it allows for that motion, that lifting and lowering of your arm, for example, because of a synovial joint.

So, this lesson has been an overview on the types and the structure of joints found in your body.