Single Spin PRP Preparation | Step-by-Step Transcript

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Understanding PRP Separation Layers

All right, let's go ahead and open this. Unlock. Remove the lid. Take out our product. Now, you can see the red cells have gone to the bottom. There's a gel separator.

Above that, there's a buffy coat of PRP.

What Is Single Spin PRP

And then above [music] that it's what we call the PPP pla pore plasma single spin PRP. It's important to use equipment supplies centrifuge etc kits that are FDA 510K cleared. There aren't actually FDA approved supplies or kits but they can be FDA cleared. You always want to check the FDA's website and you'll be looking at the 510K cleared.

Blood Collection & Handling

So in a single spin, the patient is well hydrated. The tourniquet is in place and this is a simple blood draw. With this particular tube, it is a negative pressure tube. So, with the device, there is a needle in the plastic hub that should not penetrate into the glass vial until I've gotten a flash of blood because this is a negative pressure tube, little pinch, and you fill it until it is complete.

Centrifuge Setup & Protocol

It does not fill all the way to the top because of the negative pressure. It's about 3/4 and it will stop naturally. Once that's complete, invert five times.

Gently remove the needle safely. Uh you're going to push this right up over the top for needle safety. Remove the tourniquet. Place a band-aid and put pressure on that. Perfect. As I mentioned, this should be inverted five times. This will spin per the manufacturer's recommendation for 5 minutes at spin speed of 3500. Once that is complete, you'll invert 20 times. Now that we have obtained the blood, I've inverted the tube five times gently.

This will mix the anti-coagulant with it. My machine is plugged in. Now I'm going to lift the plastic lid. Go ahead and place this inside and put the lid back on top.

Post-Spin PRP Preparation

And you'll also need a counterbalance, which will go opposite of that. Once that's complete, you're going to close the lid, lock it, and push start. Now that we've completed the spin cycle, I'm going to go ahead and open this. And I've prepared ahead of time with a sterile 5C syringe, a sterile needle, and I also have the sterile hub transfer device from the manufacturer. In practice, I always had a policy that we would have the patient's name on this syringe before we put any blood product in it. All right, let's go ahead and open this.

Unlock. Remove the lid. take [music] out our product. Now you can see the red cells have gone to the bottom there's a gel separator. Above that there's a buffy coat of PRP and then above that it's what we call the PPP pla pore plasma.

Extracting PRP Safely

I'm now going to very gently invert 20 times [music] to reconstitute the PRP with the PPP. Once this is complete, uh, this does contain a needle. [music] So, I'm going to get it ready.

Grab my sterile syringe. Lure lock this onto the transfer device. Now I'm pushing this tube down all the way and very gently pull until you have completed taking out all of the plateletri and platelet [music] poor plasma. Just nice gentle pull until it's all gone.

Final PRP Preparation & Technique

Once that is complete, continue to hold the plunger down because it is a negative pressure. Gently release the lure lock and place the sterile needle on. [music] You now have prepared single spin PRP.