

STEVE MORAN: Hello, my name is Steve Moran. I'm the surgical director of the Hand and Face Transplant Program here at Mayo Clinic. And I'm here today to talk with you about hand transplantation. Hand transplantation is an option that you can consider if you've suffered one-sided or both-sided devastating hand injuries. It's within the spectrum of reconstruction that we can offer here at Mayo Clinic.

There are many different options that are available to you after you've suffered the loss of an arm or a limb. And these would include prosthetics, such as robotic hands, hand transplantation, and also the option of moving skin, muscle, or, in some cases, toes back to the injured extremity to reconstruct fingers, thumbs, and whatever pieces are missing. Here at Mayo Clinic, we have a multidisciplinary group of surgeons, physiatrists, and medical doctors that will evaluate you to determine which option is best for you.

We are a regional referral center for patients that need electric or robotic arms. And you'd be offered the most latest advances if this is the best option for you. Mayo Clinic is the first program in the United States that offers hand transplantation as part of our regular evaluation of patients that have one-sided or both-sided significant hand injuries. You would not be part of an experimental protocol here at Mayo but part of our regular clinical algorithm for reconstructing the upper extremity.

If you wish to participate in clinical research, this is open to you, but you're not part of an experimental protocol. There are many risks that are associated with hand transplantation. And these primarily are the medications that are required following surgery. If you receive a hand transplantation, you'll need to take special medicines to prevent your body from rejecting the arm or limb.

These medicines can have side effects that include the development of diabetes, weight gain, changes in your mood, and the potential for developing skin or blood cancers, for which you need to be monitored carefully. However, if you are a good medical candidate, and these risks are understood by you, and you're willing to take them, then hand transplant may be an excellent option for you. The process of transplantation begins with a full medical evaluation in addition to specialized scans of your damaged limbs so that we can then predict what size and shape is best in terms of obtaining a donor arm.

Once we've obtained this, we put you on a list, and then you can then await the donor arm. Once the donor arm is ready, you're called back to the Mayo Clinic, and the procedure will begin to transplant that one or two arms to your extremities. The process begins by preparing the donor arm and then attaching the bones, blood vessels, muscle, and nerves back together. The process can take up to 18 hours.

Once you've had the arms transplanted in place, there is the potential, depending on where your original injury was, for you to have motion within your hands. However, feeling within the hands takes several months to recover. Because of this, you would need to remain in Rochester until you feel comfortable taking care of yourself with your new transplanted limbs. You usually spend between one or two weeks in the hospital. And then we would have you stay at a specialized center here in Rochester where you'd work daily with therapists and physiatrists on learning how to use your new hands.

One of the most important parts about hand transplantation is taking your medications every day. As we talked about before, these medications have certain risk factors. And so you have to be monitored carefully while at home and while you're here by medical doctors that will follow the levels of these medications. If these medications fall too low, or if you forget to take them, you would be at risk for your body rejecting the hand. Once you've considered all the risks and you've been evaluated here by our team of specialists, you can then make the decision if hand transplantation is right for you.

Hand transplantation has been performed in the United States for over 10 years. And it's been able to get patients back to work and to doing the things that they want to do. If this sounds like a good option for you, please contact the number at the bottom of your screen. We'd be happy to set up an evaluation for you here in Rochester. Thank you.