

Dr. Nathan Hogaboom Tests Regenerative Approach to Meniscal Tears of the Knee - Ep20

*** Recorded on March 23, 2021. *** [Listen to it here.](#)

JOAN BANKS-SMITH: 00:04 [music] This is Joan Banks-Smith for Kessler Foundation's Fast Takes - Research that Changes Lives. In this episode, I spoke with Dr. Nathan Hogaboom, a research scientist in our Center for Spinal Cord Injury Research, to talk about his latest peer reviewed article, Clinical Evaluations of Micro Fragmented Adipose Tissue as a treatment option for patients with meniscus tears with osteoarthritis. A prospective pilot study, which was published September 24, 2020, in the journal International Orthopedics. Funding sources for the study was the Derfner-Lieberman Foundation Postdoctoral Fellowship and New Jersey Regenerative Institute. Can you share with us the main takeaways of this study?

NATHAN HOGABOOM: 00:48 The purpose of this particular study was to look at an alternative treatment for meniscus tears, which currently there is really no tremendous treatment option after physical therapy. A participant will present with knee pains caused by the meniscus tear, will go to physical therapy, many will have a positive outcome and then others will not. And the next real treatment option is surgery, which can have a whole host of secondary complications that may not actually improve the pain or pathology caused by the tear. And so really the purpose of this study was to evaluate what's called autologous micro fragmented adipose tissue as a potential treatment for those who have failed physical therapy and the candidates for surgery. And so this is a pilot study, and we recruited 20 people. We followed them for 12 months after their injection, and we recorded pain and function changes over the course of 12 months. And so what we found was that in these 20 people, they tended to show a marked improvement in their pain and improvement in their function as a result of the treatment. That tells us that at least we could potentially explore this as a treatment option following further research.

BANKS-SMITH: 02:12 What is the impact and next implications of this publication to the field?

HOGABOOM: 02:16 We used this as a pilot study to generate some data that could be used for future grant applications. And so the positive findings from this particular study have allowed us to apply for additional funding. And we received funding from a governmental organization to do a larger, randomized controlled trial, comparing this particular treatment to what's called trepanation with normal saline. And trepanation simply means putting holes in the meniscus to stimulate healing. And so we received this funding to compare micro fragmented autologous adipose tissue to trepanation with saline. And we are currently enrolling in that particular study. We have enrolled two people and are currently looking for several other dozen participants.

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BANKS-SMITH: 03:13

[music] To learn more about Dr. Hogaboom, the Center for Spinal Cord Injury Research, the journal article, and ongoing related studies, links can be found in the program notes. Tuned into our podcast series lately? Join our listeners in 90 countries who enjoy learning about the work of Kessler Foundation. Follow us on Facebook, Twitter and Instagram. Listen to us on Apple Podcast, Spotify, SoundCloud, or wherever you get your podcasts. Be sure and subscribe to our SoundCloud channel, Kessler Foundation, for more research updates. This podcast was recorded on Tuesday, March 23, 2021, remotely, and was edited and produced by Joan Banks-Smith, creative producer for Kessler Foundation.