

## An orthopedic app

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A team of 16 Bucknell University students have developed a mobile application called Heel Thy Tendon, with the help of an orthopedic surgeon. This application can diagnose, and treat foot and ankle problems.

The idea was the brain child of professor of computer science Mr Xiannong Meng at Bucknell University, and orthopedic surgeon Mr John Furia. The mobile app was developed by the students engaged in Mr Meng's computer science design project.

Mr Meng said, "This was one of the times where the professor knew less than the students. He and the students pointed out that they learned a lot about the app-making process from each other. We came up with ideas that would cover what Dr Furia wanted to do, but also what we could or could not do."

Heel Thy Tendon has been designed to study four regions on the foot and ankle that are usually affected. The areas are Achilles tendinopathy; planter fasciopathy; posterior tibial tendinopathy and peroneal tendinopathy.

Depending on which area of the foot or ankle is giving problems, the individual can select the picture that represents the area. This is followed by a series of prompts that offers suggestions on the likely cause of the injury. The app also has a camera feature, the patient can take pictures and document the condition.

The mobile application has been designed and developed to work on most smartphone platforms. Bucknell senior Mr Dana Germano said, "Dr Furia provided all of the documents for us to use, but it was up to us to arrange them in the way that they would be best viewed. We had to be knowledgeable with the material to be able to do that. We discovered there is so much to think about that you never worry about when you just open up an app."