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# OT PRACTICE

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## Technology

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# Questions and Answers



After years of work, **Theresa Schmotzer, OTR/L**, was granted a patent for her company's STARStretch® program ([www.remedy-pacific.com/](http://www.remedy-pacific.com/)), which is a system for preventing on-the-job injuries in work environments with repetitive movements, such as distribution centers. Schmotzer recently discussed her "occupational therapy and ergonomics" patent with *OT Practice* associate editor Andrew Waite.

**Waite: How did you come up with this idea?**

**Schmotzer:** In 2004 I was contracted by a distribution center with 1,200 employees. They wanted to assist injured workers in returning to work through the office of workers' compensation. I was in demand and could not make it across the work room floor without dozens of employees stopping me to ask if I could help ease their pain. I asked the plant manager if I should intervene immediately or if I needed to wait until they filed injury or illness claims. I was instructed not to wait until claims were filed and was issued a supplemental contract to conduct early intervention 1 day per week. Hence our early intervention program was born.

Shortly after the early intervention program began, a supervisor approached me, reporting that his entire work group of 80 employees needed intervention. He asked if he could distribute my pain survey to his work group. The survey pro-

vided me data on the body location, frequency, and severity of the pain that the individual had, based on a self-evaluation. It provided a baseline for each individual so I could track the progress of my early intervention techniques. The average pain level for this work group was a 5 out of 10 on the Likert pain scale. I realized the plant would need five full-time occupational therapists to see everyone,

**Waite: Why did you want to patent the process?**

**Schmotzer:** I needed to have a patent to protect my idea. I was working with a large agency and some of the other national contractors were trying to put a stake on what I had created, even though they had nothing to do with occupational therapy or what I did. So I realized I needed to protect my idea.

**Waite: What is the patent process like?**

**Schmotzer:** You have to file a provisional application and then you have 1 year to finalize your application so you can make changes. I actually discovered that I needed to make the program more progressive. So what I did was make

and there was no way that was going to happen! I asked myself how I could come up with something financially feasible for the plant and still help all of these people.

**Waite: How does your program work?**

**Schmotzer:** First, I identify the appropriate work environment to evaluate for potential injuries, which would be one where the employees are doing a lot of repetitive movements, since that is how many injuries are sustained. Second, I evaluate the work environment overall. I evaluate the employees individually and as a group regarding their pain levels and where they're having pain. Third, I do an ergonomic evaluation of the job task, and then I make recommendations for simple design changes. For instance, I make adjustments so they are not reaching above shoulder level repetitively or moving their body into the work area to prevent bending their wrist. I always teach people joint preservation techniques so they are using larger joints. From there I will do a range-of-motion assessment, which determines the muscle groups that are being overused or underused. Finally, based on all of the assessment material gathered, I will devise an injury prevention program that compensates for whatever shortcomings were not able to be remediated in the design of the job task.

**Waite: What's the goal of the program?**

**Schmotzer:** The idea is to stop injuries before they occur. I can identify the types of injuries that people are likely to develop if they keep doing the job the way the task and equipment are designed. ■

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it essentially a 4-step program to help people get back to their normal range of motion and normal movement. Then you file your finalized application. The office will look at it and say if it's patentable, and then they will look to see if anyone else has done it.

The thing that struck me more than anything when I got my patent was I found out that less than 2% of methodol-

ogy patents are actually granted. Had I known that, I would have never filed. I would have thought that there is no way I would get this.