HEALING HANDS

DR. YAO'S GLOVES MAKE THE PAIN GO AWAY

BY EDIE TOLCHIN

Joe Yao is an orthopedic surgeon who for years has treated patients suffering from musculoskeletal trauma, including sports injuries, degenerative diseases, infections, tumors and congenital conditions.

About a decade ago, Yao began to experience numbness in his hands when driving, riding his bike and using his computer.

Bicycle gloves, keyboard pads and other conventional remedies provided little relief. The doctor was now the patient.

Yao, 54 of Blytheville, Ark., has always been a tinkerer. "Joe used to disassemble all his toys" as a kid, says his 84-year-old mother, Eleanor. So it didn't take long for him to deconstruct the problem and noodle a novel solution — what if you had gloves with gel padding on the edge of the palm, placed outside the median and ulnar nerves that run in the center of the hand? He believed that such a technique could alleviate pressure on these two major hand nerves and cure his numbness.

He made a crude prototype... and it worked.

But by 2003, Yao couldn't find a domestic manufacturer willing to do a small production run for him. With my help, he found a manufacturer in Taiwan.

With a short-run supply of sample driving gloves, he sought truck drivers to test his product's efficacy, durability and comfort. He found a receptive travel plaza after months of searching. Yao and his office staff spent four days there, handing out gloves to 740 professional truck drivers who agreed to give their feedback.

Results of guerrilla market test:

- 59 percent of the drivers had hand pain
- 71 percent had numbness while driving
- 76 percent of symptomatic drivers had
 60 percent less pain and numbness
 within 30 days of wearing his gloves.

Carpal tunnel syndrome or CTS is a painful condition caused by compression of the median nerve. Numbers of cases have declined, even as computer use has become nearly ubiquitous. Reported cases of CTS fell by half between 2005 and 2006, according to the Bureau of Labor Statistics. Still, the malady is real, with tens of thousands



diagnosed each year. Treatments range from relaxation or cessation of certain activities, to cortisone shots and surgery.

Convinced he had a market winner, Yao applied for a patent. His medical background helped him write the technical parts of the application. A patent attorney added the legal verbiage.

The U.S. Patent and Trademark Office awarded him a patent on Jan. 1, 2005 and he later trademarked the logo Qwi, which means "swift" in Chinese.

A few months after getting his patent, he attended the Mid-America Trucking Show, the world's largest such event. But a delay in shipping meant he exhibited without any gloves to show fleet managers and other representatives. "It was a big disappointment," Yao says, "and resulted in lost sales and lost opportunities."

Other problems surfaced. The synthetic leather palms quickly wore out, prompting a switch to real leather, which proved expensive for his Taiwan manufacturer to procure.

I helped Joe locate a mainland Chinese manufacturer. The language barrier was an obstacle and the factory incorrectly stitched the gel pads and used thin leather that tore. The manufacturer also used synthetic leather on the gloves' wrist straps instead of real leather. Black specks of material shed onto customers' skin. Cheap dye stained customers' hands. Some glove fingers were large enough to accommodate two or more fingers.

I have found translating key quality-control issues into Chinese usually helps and obviates the need for costly visits to the factory. Joe even produced his own videos, with his mom narrating in Chinese, to explain to the factory the changes he required.

Yet some aspects of his enterprise have gone better than expected. He attended Wing Ding '06 in Nashville, Tenn., site of the largest convention of owners of Honda Gold Wing and Valkyrie motorcycles.

His booth was near the front doors of the exhibit hall, a prime location. Attendees lined up outside, patiently waiting for the event to start. There was a sudden flood of people as they surged into the exhibit hall, many of them heading in the direction of Joe's modest booth. He and his helpers spent the next three days working feverishly as people lined up at times five-deep across the front of the booth.

Yao also found a great marketing mentor through SCORE, a national organization of retired executives that offers free help to small businesses. SCORE taught Yao how to write effective press releases and helped with ads, marketing materials and his Web site.

Yao is expanding his line of gloves from truck-drivers, motorcyclists and bicyclists to now also target baseball, golfing, computer and landscaping markets. He hopes to operate his own factory one day. This would shorten product-development time, improve quality control, allow limited-production runs and on-demand fabrication and reduce inventory. Of course, domestic production would eliminate overseas shipping and import costs – and provide local jobs.

Meantime, he's selling his gloves on his Web site, alleviating carpal tunnel syndrome and other breeds of hand ailments one sale at a time.

"Joe is definitely the doer in our family," says Yao's brother, Larry. "He's a trailblazer, always interested in trying new things, traveling a difficult road without pause or doubt." ■

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Heads up:

- Chinese factories close for two weeks during Chinese New Year and other holidays. The Chinese government also imposes spur-of-the-moment restrictions. It prohibited leather manufacturing because of pollution concerns before and during the 2008 Summer Olympics.
- While domestic manufacturing can cost twice that in China, cost advantages are decreasing as labor costs rise. The Chinese industry's shift from manufacturing low-tech, low-margin products for export to making higher margin products for both export and domestic consumption has included less favorable tax treatment for textile products.
- Air shipping from China to the U.S. is expensive. Then there are import duties. Ocean shipping is cheaper, but shipments can take about three weeks to cross the water.

JOE GIBBS HAS A GAME PLAN

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I change? I can't think of anything.

Talk about the resources Job Gibbs Racing puts into research and development of its own branded oil.

JG: We're working with our technical partner to improve the oil. We came up with something we think will make a big difference. We're killing it to squeeze out three or four more horsepower and protect the motors. We developed a high-quality oil through experimentation. It was so good, we thought about how to sell it ourselves and developed another business around it. The oil we're selling now you can't run in a street car — it doesn't have all the specifications and ingredients that a street car would have to have. But it can be run at race tracks.

D: How would fans or others go about buying the oil your labs produce?

JG: They can contact us at Joe Gibbs Racing and we have distributors across the country.

Your new book, *Game Plan For Life*, releases in July. How is it different from other motivational books out there?

JG: I'm extremely excited about it. A little bit of background: I give people my testimony about how I asked Christ to come into my life and then I sometimes hand them a Bible. Well, I've seen some people struggle with the Bible and most seem to struggle in the same areas. Imagine, it was originally written in this old, strange language over 2,000 years ago and it has been translated over the years into any number of formats. Some think it just can't be relevant today. I've heard many tell me that it's difficult to find a verse or lesson about a specific subject. You just have to hunt and peck until you find it.

I thought it would be neat to put out something that could address those areas. We had a research group fan out across the nation and ask a cross-section of Americans what they believed would be the most relevant lessons they would need to lead a successful life.

What came back were 11 subjects. Health, success, heaven, creation and so on and we went down that list and had a biblical scholar talk about each of these topics. My testimony weaves through there. When I followed these principles in my life, it's led to success. And when I didn't it's led to trouble, including financial disaster, which I detail. It's a relevant, modern game plan that gives you the game plan for life.

D: What did financial disaster look like for you?

JG: When I got the job with the Redskins in 1981, I was a young coach on a short-term contract. I got offered an opportunity to invest in a simple business partnership. We agreed to co-sign on loans. It didn't take long for that to collapse, with the other partners filing for bankruptcy on loans we couldn't pay and me sort of holding the bag. I was able to work out something with nine banks and got through it four years later. I was a fool. I was playing a game instead of following a game plan.

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