

sports

Power Plate workout winning converts

Athletes, trainers know great shakes

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At first glance it reminds you of the junk advertised on late-night infomercials, the stuff that can give you rock-hard abs while you sleep. Or helps you lose weight without dieting.

But a device that can shake your booty 30 to 50 times per second has become the hot new tool for many professional sports trainers and physical therapists, even pop stars such as Madonna.

It's called the Power Plate. Some use it as a strength-and-conditioning machine. Others use it to enhance their warm-up and stretching routine before a training session or a game, and to regenerate muscles afterward. Physical therapists use it as a rehabilitation tool.

Jim Keller, a former Broncos trainer and the founder of Next Level Sports Performance in Golden, swears by it.

"Man to man, eye to eye, this is the best thing I've seen," said Keller, who admitted he was skeptical until he tried it out.

The concept reminds you of the old-fashioned, tummy-tumbling vibrating belts you used to see fat guys using to "work out" in black-and-white films. Standing on one feels like riding a road bike across a teeth-rattling highway rumble strip at 25 mph. Stand on it too long and you wonder if your eyeballs are going to pop out like champagne corks.

But the "acceleration training" and "vibration therapy" the Power Plate is designed to impart have made it a hot product. Proponents say the vibrations stimulate neuromuscular activity, wake up muscle fibers and increase blood flow. That's why Phoenix Suns center Shaquille O'Neal uses it to warm up before games.

"I don't really know the medical premise behind it," O'Neal said, "but it does seem to get you loose."

Power players

The Power Plate website (us.powerplate.com) lists testimonials from the Chicago Bulls, Green Bay Packers, Sting, Manchester United and Hilary Swank, among others. Boulder physical therapist Mark Plaatjes, a former world champion in the marathon, is researching the machine trying to decide if he'll buy one.

The Power Plate isn't cheap: Professional models cost \$9,250 and \$10,500. Personal models for home use go for \$2,500 and \$4,500.

"I've been reading a bunch of studies that all point to some quite significant benefits for a very wide range of problems," Plaatjes said. "It seems to be a very regenerative process. It wouldn't seem like it, but they seem to be getting a lot of good results."



Nuggets forward Eduardo Najera, working with strength coach Steve Hess, enjoys the Power Plate to warm up without pounding.
(Hyoung Chang, The Denver Post)

Nuggets strength-and-conditioning coach Steve Hess has been using the Power Plate for five years.

"I absolutely love it, love it, love it, love it as a warm-up tool," said Hess, who also likes it for workout recovery. "In layman's terms, it gets the muscles to open up while stretching, allowing more blood flow into the area, allowing it to get warmer, quicker."

Not everyone is sold on the concept.

"I don't use it," said Nuggets guard Allen Iverson. At least 15 NFL teams have them, but not the Broncos. Head trainer Steve Antonopoulos said the team is "still in the information-gathering stage."

Nuggets forward Eduardo Najera learned to like it when he played for the Dallas Mavericks, missed it when he was traded to the Golden State Warriors and was happy to find one waiting at the Pepsi Center when he was traded here.

"I warm up on it, and when I need to do some exercises without pounding my body and my knees," Najera said. "I use it when I need to stretch and when I need to get warm. It gets all that blood flowing in your legs, and you get a better stretch than you normally would."

The initial concept was developed for Soviet cosmonauts in the 1960s as a way to counteract the degeneration of bone and muscle in space. A Dutch Olympic strength coach adapted the concept for training in 1999, creating the Power Plate. Hess uses it to isolate specific body parts of the Nuggets who use it.

"I'll have them mimic a jump shot, then hold it for eight seconds, then do it again in a more ballistic fashion," Hess said. "They're jumping up to their toes. I'll have them do a defensive stance, putting one foot on the plate, one foot on the ground, and then switch it up while in motion. If they're going to do post-ups, I'll have them put their elbows on the plate, so it's in the exact motion they're going to use."

Performance boost

Phillip Rish, a trainer at the Forza fitness club in downtown Denver, said he can bench-press 10-15 pounds more after doing push-ups on the Power Plate than he could bench without it. Carlos Saavedra, a trainer for Power Plate, said users can stretch their hamstrings 1 1/2 to 2 inches farther after 45 seconds on the Power Plate.

"You stretch your hamstrings the same way you stretch your hamstrings on the floor, but you don't need 20 minutes," Saavedra said. "Now you can go through your whole movement prep and stretching routine in a matter of a couple of minutes and you're completely loose."

Saavedra concedes the Power Plate might look like a gimmicky toy of dubious worth, like a late-night infomercial.

"Thankfully a lot of the people we work with, a lot of our partners when it comes to elite training and professional teams that are coming on board, they're not in it to play with the new toy," Saavedra said. "They're in it for results and they're seeing results with it, which is giving us a huge boost of credibility."

Power Plate Video:

<http://link.brightcove.com/services/link/bcpid934052406/bctid1454954151>

Good vibrations

The Power Plate, which is being used by the Nuggets and several professional athletes for warm-ups, recovery and rehabilitation, uses vibration therapy to increase the blood flow and activate muscle fibers. Studies reveal the Power Plate can enhance bone density, muscle recruitment and flexibility and reduces muscle soreness. Here's how it works:

- 1** The control panel allows one to set the machine at the desired level of vibrations, from 30 to 50 vibrations per second, for 30 to 45 seconds.
- 2** The users stand in a position of "pretension" that isolates the muscle they want to activate or loosen.
- 3** The plate vibrates on three different planes: side to side, front to back and up and down.

Inside the tissues

Each vibration that moves the body up and down mimics the body jumping at the rate the vibration is set.

In the muscle fibers, Golgi tendons and the muscle spindles send messages to the brain that the muscle is under tension. This causes the muscle to recruit more muscle fibers, increasing contractability and blood flow.

In the bones, the vibration stimulates bone cells to increase bone density.

