

Evaluating Pains and Gains Of Weight Lifting Regimen

By LINDA VILLAROSA

Over the last decade, more Americans have been heading to the weight room.

A recent survey by the Centers for Disease Control and Prevention estimates that one in five people lifts weights regularly. The Sporting Goods Manufacturers Association reports an 89 percent increase in the number of people lifting free weights and a 50 percent increase in those using weight machines from 1987 to 1999.

But as more people get involved in weight training, more people get hurt. A new study from the University of Arkansas looked at more than 20,000 weight-training injuries from 1978 to 1998 and found sharp increases in injuries. In men over 50, weight-training injuries jumped 331 percent over the 20-year period, while injuries among their female counterparts rose 212 percent.

The study, believed to be the largest to look at weight-training injuries, was published in a recent issue of the journal *The Physician and Sportsmedicine*. Overall, the increase was found to be 35 percent.

But that figure may be deceptively low. "We only looked at emergency room data," said Dr. Chester S. Jones, associate professor of health science at the University of Arkansas in Fayetteville. "There are many, many more kinds of strains and sprains that happen when you weight train that don't send you to the E.R." Twenty years ago, he added, weight lifting was strictly for young men, Dr. Jones said. "But over the past two decades, older men, and women of all ages have discovered the benefits of weight training, so they are participating more and more. But that also means they are getting injured more."

The benefits of strength training for those over 50 can be significant. A number of recent studies show that building strength can sharply reverse the loss in muscle and bone density that occurs as the body ages. That may explain why the percentage of men and women over 45 who are lifting weights has more than doubled in the past five years.

But because the rate of injuries has outpaced increases in participation among certain groups, experts suspect that many of these converts may not be lifting correctly. Or, they may be squeezing in workouts on

the weekends, between work, family and other responsibilities.

"People in their 40's and 50's are often 'weekend warriors' who tend to do very intense activities for small amounts of time," said Dr. Edward R. Laskowski, co-director of the Mayo Sports Medicine Center in Rochester, Minn. "When you do too much on those weekend days, you raise the risk of overload injuries. Plus, it's important for older adults to remember that the aging body can't get away with as much." The Arkansas study also pointed to increases in injuries among those who work out at home.

Weight-training injuries have been especially high among men over 50.

"People at home rarely have someone overseeing them, so they lift much too fast," said Thomas C. Purvis, a physical therapist in Oklahoma City, who uses resistance training with his patients.

Dr. Jones pointed out another hazard: "At home, weights are often lying around, and children can get injured. Children under the age of 4 are particularly susceptible."

Most common in the University of Arkansas study were soft-tissue injuries like bruises, sprains and strains, with the hand as the most frequently hurt body part. But because the research looked only at injuries severe enough to require an emergency-room visit, it most likely is skewed toward more serious acute injuries.

In his practice at the Mayo Clinic, Dr. Laskowski points out that he frequently sees problems of the shoulders, like rotator cuff injury and tendinitis. His patients also commonly complain of musculoskeletal pain in the upper and lower back, often from exercises that combine upper and lower body movements, like squats. He also sees large numbers of knee problems, mainly from people doing knee extensions incorrectly.

To help prevent weight-training injury, Dr. Laskowski, Dr. Jones and Thomas Purvis offer these suggestions:

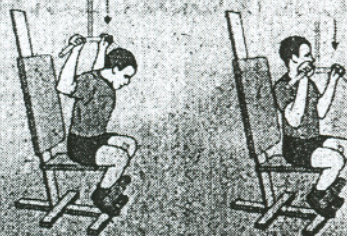
☛ Work out consistently. That means find-

Fit and Injury-Free

As more people get involved in weight training, more people get hurt, and experts suspect that many of the converts may not be lifting properly.

SOME COMMON MISTAKES

THE PULL-DOWN



INCORRECT

CORRECT

Pulling down behind the neck can injure the spine and shoulders.

THE KNEE EXTENSION

The potential for knee injury is greatest during the last 5 to 10 degrees of extension, especially as the load increases.



INCORRECT

CORRECT

Source: *The Physician and Sportsmedicine*

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ing time to lift weights several times a week.

☛ Do not rush through a resistance workout. Lower the weights slowly.

☛ Get help from a professional.

☛ Use weights properly at home. Those who have never tried weight training or haven't lifted for years should take a class or hire a trainer, even for just a few sessions. Even when working out at home, participants should wear shoes when lifting weights. (And store the weights in a safe place.)

☛ Use the weights only as intended. In his study, Dr. Jones found 34 deaths associated with weight training, all but one related to unsafe use of the weights. For instance, one person drowned in a swimming pool after using a weight belt as an anchor for a breath-holding exercise.