

MAY 1987/\$1.75

# WOMEN'S SPORTS & FITNESS

HOW TO BUILD A BALANCED BODY



## WHERE TO FIND THE GOOD LIFE

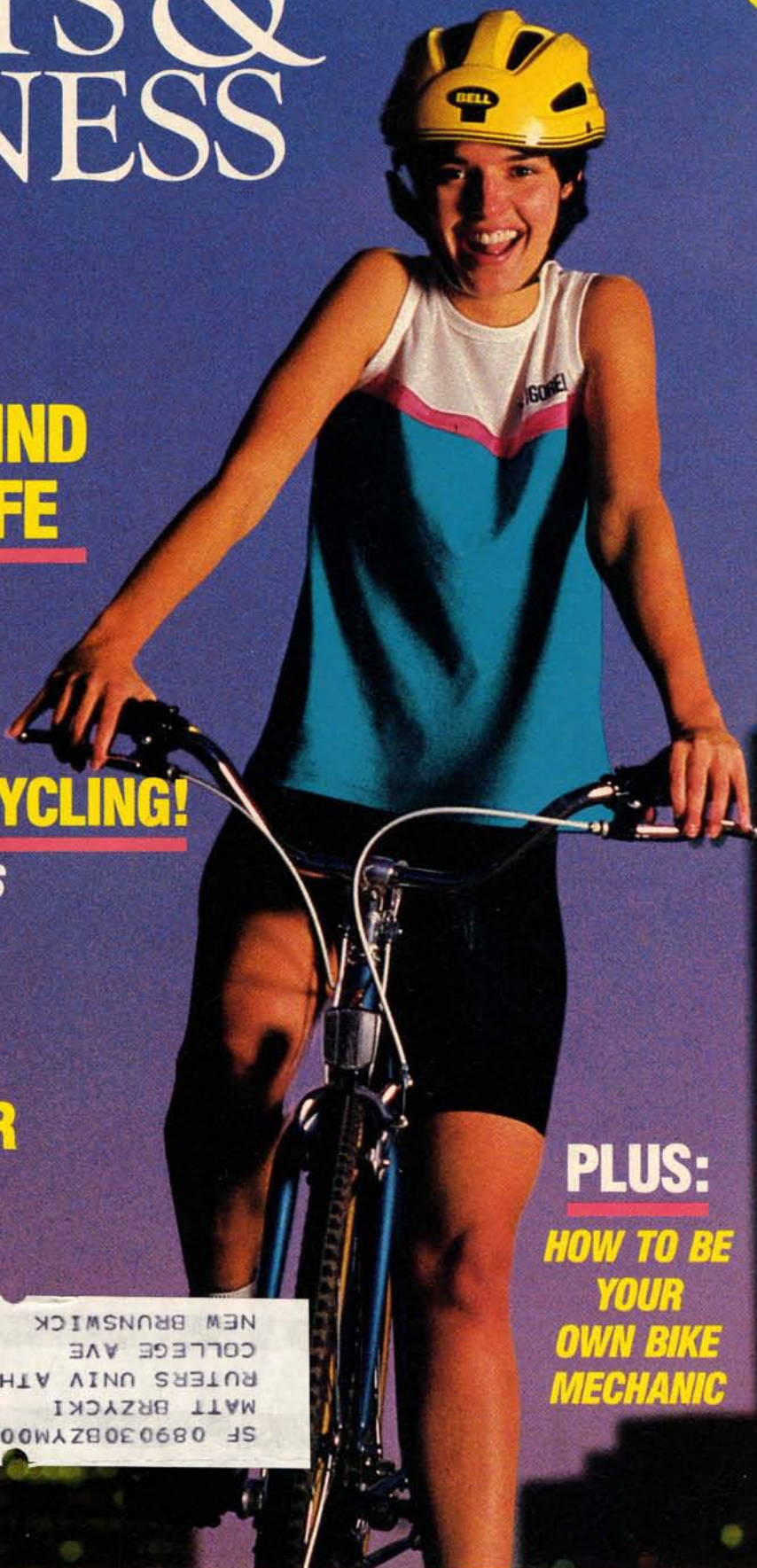
10 BEST CITIES FOR  
ACTIVE WOMEN

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**THE TRUTH ABOUT DMSO**

*It may be better for thinning paint*

**T**wenty years ago you might keep a jar of DMSO—dimethyl sulfoxide—around the house and use it to dissolve paint and grease. Today the same jar is in an estimated 23 million medicine cabinets and is used to relieve soft-tissue sports injuries and severe arthritis. Proponents call DMSO a wonder drug. Physicians are unconvinced.

The only form of DMSO approved by the Food and Drug Administration is a 50 percent solution that can be obtained by prescription to treat interstitial cystitis. Though no health claims can appear on the label, it remains generally available as an industrial solvent.

DMSO is a byproduct of the wood pulp and paper manufacturing process. When rubbed on a painful area, it quickly passes through normally impervious skin-cell walls to reduce local pain and swelling.

But it also travels straight to the bloodstream, bringing with it anything else that has made contact with the skin. Thus, a soccer player who has massaged her sore muscles with DMSO before a game

can absorb dirt—as well as chemicals used to treat grass—if she falls down.

There are other unpleasant side effects. Within minutes of applying the drug, users emit a strong mushroom or garlic odor. DMSO can cause allergic reactions such as hives, facial swelling and shortness of breath, headaches, nausea, and diarrhea, along with a host of visual problems including light sensitivity, cataracts, blurred vision, and night blindness.

Is DMSO miraculous enough to risk the dangers? “I haven’t seen any convincing evidence that it’s safe or effective for athletes,” says Lisa Fugate of the Health Research Group in Washington, D.C. “It’s fickle,” admits marathoner Alberto Salazar. “Sometimes I get immediate relief, and other times it doesn’t seem to work at all.”

Dr. E. C. Percy, director of the sports medicine program at the University of Arizona in Tucson, treated one group of injured athletes with a 70 percent DMSO solution, and another with a virtually ineffective 5 percent solution (instead of 0 percent, so that the subjects would still emit the telltale odor). The results: the groups showed no difference in pain relief.

—Susan Festa

**ACCENTUATE THE NEGATIVE**

*Lowering weights builds stronger muscles*

**T**oo weak to do a bench press? Then try a “bench-down”: lower the weight instead of raising it.

A study sponsored by Nautilus founder Arthur Jones evaluated three types of strength: positive, the ability to raise weight; static, the ability to hold weight; and negative, the ability to lower weight. In a static position, study subjects could hold about 20 percent more than they could raise, and they could lower 40 percent more than they lifted. When a muscle’s negative strength increased, so did its positive and static strength.

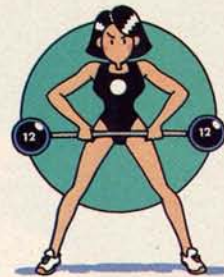
The study also indicated that negative resistance training can be an efficient way to weight train. When



**Raising**

performing normal sets of weight lifts, the subjects reached a point where they couldn’t lift the weight anymore. But they could still lower it: their negative strength had scarcely been tapped. By performing several negative resistance reps when they were tired, their total muscle strength increased faster than would have been possible with conventional techniques.

Since negative resistance training is physically demanding, experts caution that it should be used only with extreme care—and some say that only high-level athletes should practice it. But proponents note



**Holding**

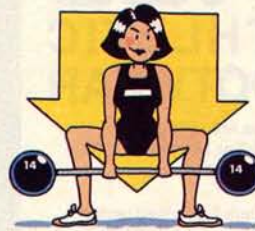
that when done properly, it can benefit nearly anyone. For example, when normal weight-training exercises are too difficult for certain injured muscles, some therapists recommend negative resistance techniques.

To increase upper-body strength, try standing on a stool that will allow you to grab a chin-up bar with your chest just touching it. Then step off the stool and take six to eight seconds to lower yourself to a hanging position. After you repeat the exercise six to eight times, a few times a week for several weeks, you may become strong enough to pull yourself up.

If you are getting bored with your workout, you could replace some exercises with negative resistance work. Add no more than 40 percent more weight to the free weights you’re working with; if you use machines, add a lesser percentage. Have a coach or training partner help you raise the weight, and spot you while you lower it.

To work both your positive and negative strengths, take about two seconds to raise a weight, and four to lower it. You’ll find that your workouts suddenly become much more productive—and only seconds longer.

—Matt Brzycki



**Lowering**

ILLUSTRATION (UPPER LEFT) BY WARD SCHUMAKER; ILLUSTRATIONS (RIGHT) BY ROBERT KOPECKY