

PT BUSINESS TIPS | DAY SPA COSTS | RISK MANAGEMENT | EXERCISE & SLEEP

# Fitness Management™

ISSUES AND SOLUTIONS FOR FITNESS PROFESSIONALS

FEBRUARY 2004

# STRENGTH

**Add Muscle to  
Your Marketing!**

**Design Strength Programs  
for Beginning Exercisers**

**How to Plan for an  
Emergency Response**



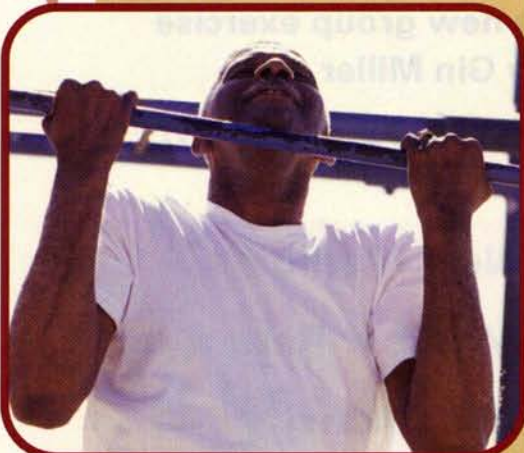
#BXNQSHT \*\*\*AUTO\*\* 3-DIGIT 086  
#08648BRZYCI00965# FM 04DEC  
MATT BRZYCKI 1 229  
PRINCETON UNIVERSITY  
1 DAYNA LN  
TRENTON NJ 08648-1583

01228  
03346

By Matt Brzycki

## Why is it easier to perform a chin-up than a pull-up?

Regardless of how exercisers position their hands, just about any type of pulling movement for the torso — whether it's rowing, chinning or any pulling variation — targets the same muscles (the upper back [or lats], biceps and forearms). However, there are differences in the leverage that's received from the musculoskeletal system based on the grip that's used. For example, performing a chin-up with an underhand grip (the palms facing the body) is more biomechanically efficient than performing a pull-up with an over-

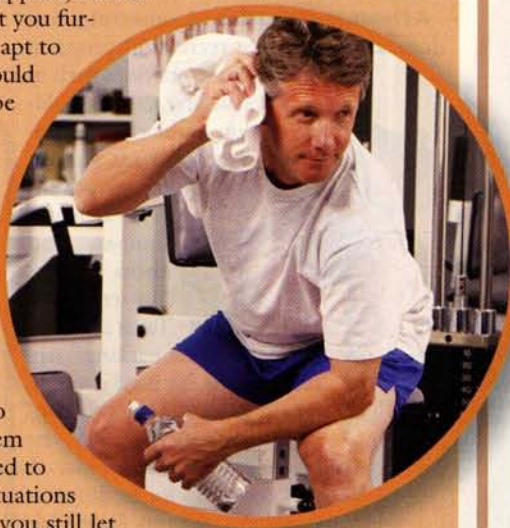


hand grip (the palms facing away the body). With an underhand grip, the radius and ulna (bones in the lower arms) run parallel to one another. With an overhand grip, the radius crosses over the ulna. In this position, the bicep tendon gets wrapped around the lower portion of the radius, creating a biomechanical disadvantage, and a loss in leverage. This is also true when comparing underhand and overhand grips during pull-down and rowing movements — the same muscles are used, but with varying degrees of biomechanical leverage. With a parallel grip — in which the palms face each other — the bones in the lower arms do not cross, either. This grip, then, is also more efficient than an overhand one.

## How can we encourage members to wipe off equipment when they're done?

There's really no way to ensure that your members wipe off equipment when they're finished, but there are ways to encourage that behavior. The most important thing you can do is to provide them with adequate supplies, such as spray bottles and towels. The number that you furnish depends on how many members are apt to be in your facility at any one time. You should also post signage such as, "Please wipe down equipment after use."

It's recommended that you keep extra spray bottles in stock to replace those that break (or at least have spare nozzles in stock). In terms of towels, you have several options. One is to provide your members with towels. Keep in mind, though, that having a towel service can be a significant expense, and laundry must be done on a regular basis. Another option is to ask your members to bring their own towels. If you require them to do this, make sure that signage is posted to that effect, and be prepared to address situations when members forget their towels. (Do you still let them work out, or do you deny them access?) A third option is to mount paper-towel dispensers throughout the fitness center, which solves some of the aforementioned issues — but purchasing paper towels can get expensive as well.



## Does walking 1 mile burn the same number of calories as running 1 mile?

No, walking and running the same distance does not burn the same number of calories. The American College of Sports Medicine offers different equations for determining oxygen consumption and caloric expenditure during walking and running. Based on these equations, a 200-pound man who walks 1 mile in 20 minutes on a level surface will use roughly 5.25 calories per minute (cal/min). Over the course of his 20-minute walk, his total caloric usage would be about 105 calories (5.25 cal/min x 20 minutes). If that same individual ran 1 mile in 10 minutes on a level surface, he would use about 16.22 cal/min. During his 10-minute effort, he would have used about 162.2 total calories (16.22 cal/min x 10 minutes). So, running 1 mile uses significantly more calories than walking 1 mile (162.2 calories compared to 105.0 calories). This is true despite the fact that the duration of walking was twice as long as that of running (20 minutes compared to 10 minutes).

Matt Brzycki is the coordinator of recreational fitness and wellness programs at Princeton University. He has more than 20 years of experience at the collegiate level, and has authored, co-authored or edited 11 books. Do you have questions that you need answered? Email them to [edit@fitnessmgmt.com](mailto:edit@fitnessmgmt.com).