

Strength

athlete

JUNE/JULY No 246

£1.20
\$3.50

OVER THE TOP

*Inside look at one
arm wrestling.*

STEVE REEVES

The Legend.

FIGHTING FIT

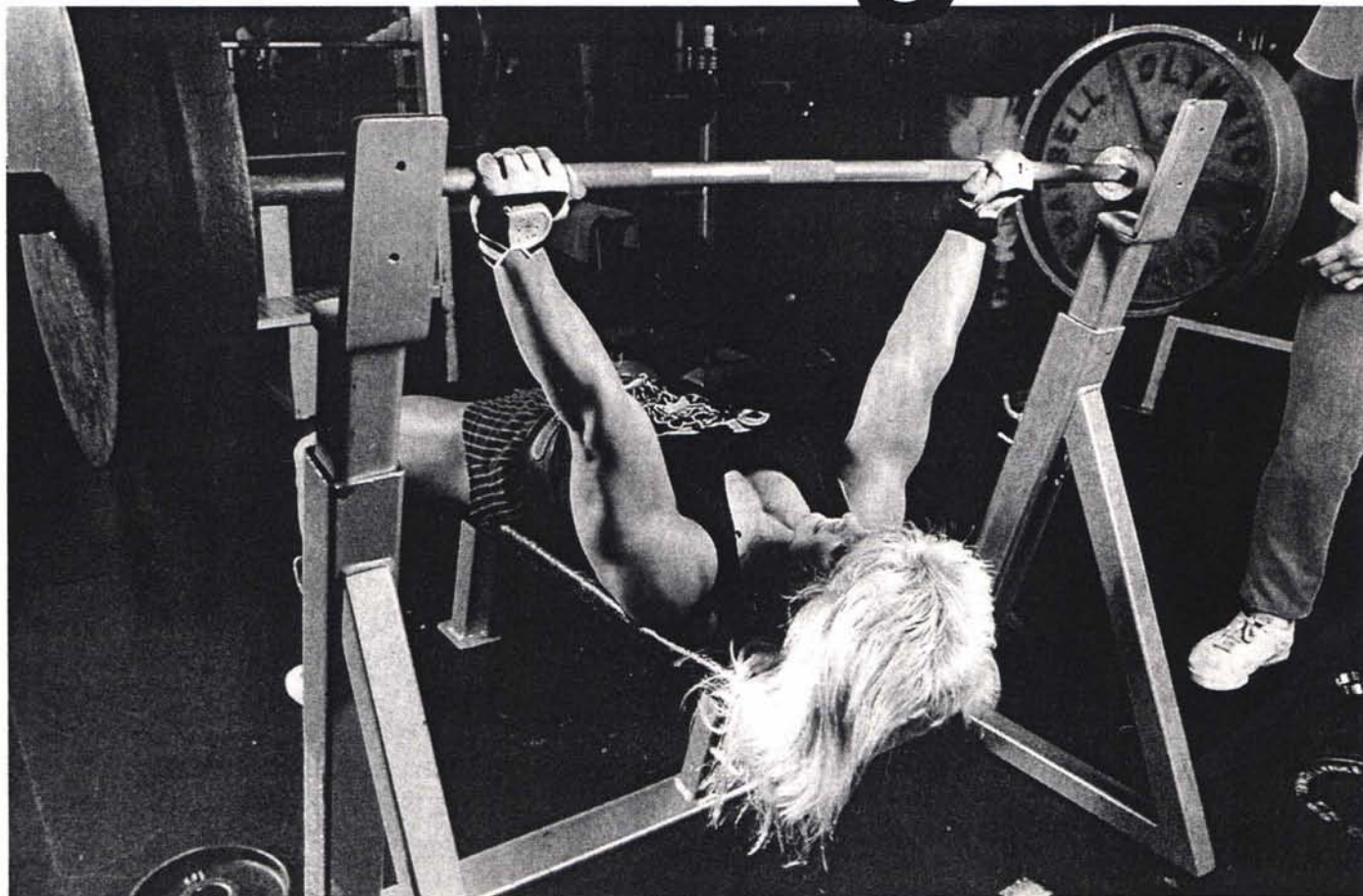
*Jimmy Ellis
Professional Boxer.*

DREW 'MAD' McDONALD

*The Heavyweight
Wrestler.*

are you building strength or

Article by
MATT BRZYCKI
Photographs by
PAULA CRANE



Most strength coaches, myself included, are former competitive weightlifters. Unfortunately, in most cases strength coaches have elected to train their athletes in the same manner that they themselves trained. Additionally, many strength coaches are often influenced by the latest "research" that comes out of the Eastern Bloc countries, since they traditionally have the best weightlifters in the world. In effect, there are large numbers of athletes training like competitive lifters performing endless sets of each exercise. This may be the best way to **demonstrate** strength but it isn't necessarily the best way to **build** strength. Athletes need not and should not train like weightlifters for at least four reasons:

1). Several of the movements that are typically associated with these programmes (e.g. the power clean and the snatch) are extremely complex motor skills. Like any other

motor skill, it takes a lot of time to master the specific neuro-muscular patterns. This valuable time could be used to perfect techniques in an athlete's particular sport. In short, many athletes are spending needless time and energy learning competitive lifting skills.

Additionally, motor learning research tells us that there is absolutely **no** carry over between competitive lifting skills and athletic skills. The Principle of Specificity is well documented in the literature. Briefly, it states that your activities or practices must be **specific** to the task or skill in order for maximal improvement to occur. Specific means **exact** - not similar, but **exact**. So, how can a power clean, for example, be touted as specific to such a wide range of diverse skills from breast stroke to the shot put to the golf swing? Obviously, it can't. The best way to improve a particular motor skill is to practice that motor

skill for thousands and thousands of repetitions.

2). Although "multiple set" strength programmes can be productive, they are extremely inefficient in terms of time. I've read prescriptions for countless routines that ask their athletes to perform over 50 sets per workout 6 times a week! That's ridiculous. I also find it hard to believe that an **entire** team has the time to train in this fashion. Imagine how long it would take! And, if your programme doesn't address **all** of your athletes, then your programme is somewhat less than successful.

In addition, most of the sets are essentially worthless because they're submaximal. If an athlete's maximal bench press is 200 pounds, of what possible use is a set with 50% of that (100 pounds?). Warm-up sets **are** necessary - but **only** for competitive weightlifters. During their training, they need those sets

MATT BRZYCKI, C.S.C.S. - Matt Brzycki earned a Bachelor of Science degree in Health and Physical Education from Penn State. After graduating in 1983, he served on the Health/Fitness staff at Princeton University. Since September of 1984, he has been employed full time as the Assistant Strength Coach of Rutgers - The State University of New Jersey. A former competitive powerlifter, he is accredited by the National Strength and Conditioning Association as a Certified Strength and Conditioning Specialist.

demonstrating it



to practice the specific motor patterns for their sport; during a maximum attempt, they also require warm-up sets to reduce their risk of sustaining an injury. They'll also obtain a better response from "warm" muscles. However, other athletes don't have to train like this. You'll get similar results by doing **one** maximal set to the point of momentary muscular failure for a prescribed number of reps. And, if you perform a high number of repetitions (generally 6 - 12 for the upper body and 10 - 15 for the lower body) in a controlled fashion, your muscles will warm-up as you do the set. Similar results - but in a fraction of the time.

3). Going for a one repetition maximum or low repetition movements (less than about 3 reps) increases the likelihood of injury. Not only that, but there's absolutely no correlation between how much someone lifts and his ability to wrestle

or play football or do anything else. If there was a correlation, I'm sure we would see more native Bulgarians and Romanians in the National Football League since they're among the best weightlifters on the planet. So, until the rules are changed to use an athlete's maximal bench press as a tie-breaking criteria, don't emphasize how much you can lift for one rep.

4). Several of the exercises used by competitive lifters are inherently dangerous. For example, barbell squats compress the spinal column and place much stress on the knee joint. Exercises are also very dangerous if done explosively. Again, not a shred of evidence exists to suggest that lifting explosively will make your more explosive. Sadly, that's what is occurring out there in most strength programmes. Some programmes even go so far as to hold a "Meet Day" in which their athletes go for their maximal at-

tempts. Sounds like a weightlifting meet to me. At least one school has an area cordoned off that no one can use unless they can bench press and squat a certain amount of weight. I suppose it's some sort of hallowed ground or something. I bet there's hundreds of programmes out there force-feeding periodization (or something similar) to their athletes. Can you imagine how confusing microcycles, mesocycles, macrocycles, hypertrophy phases and other aspects must be to a 16 or 17 year old?

To sum it up, a strength programme need not be a marathon session of endless "warm-up" sets; it's much more efficient and far less complicated to utilize a single set system of maximal intensity which addresses all of the body's major muscle groups. The successful strength programme is safe, efficient and productive while meeting the needs of your entire team.