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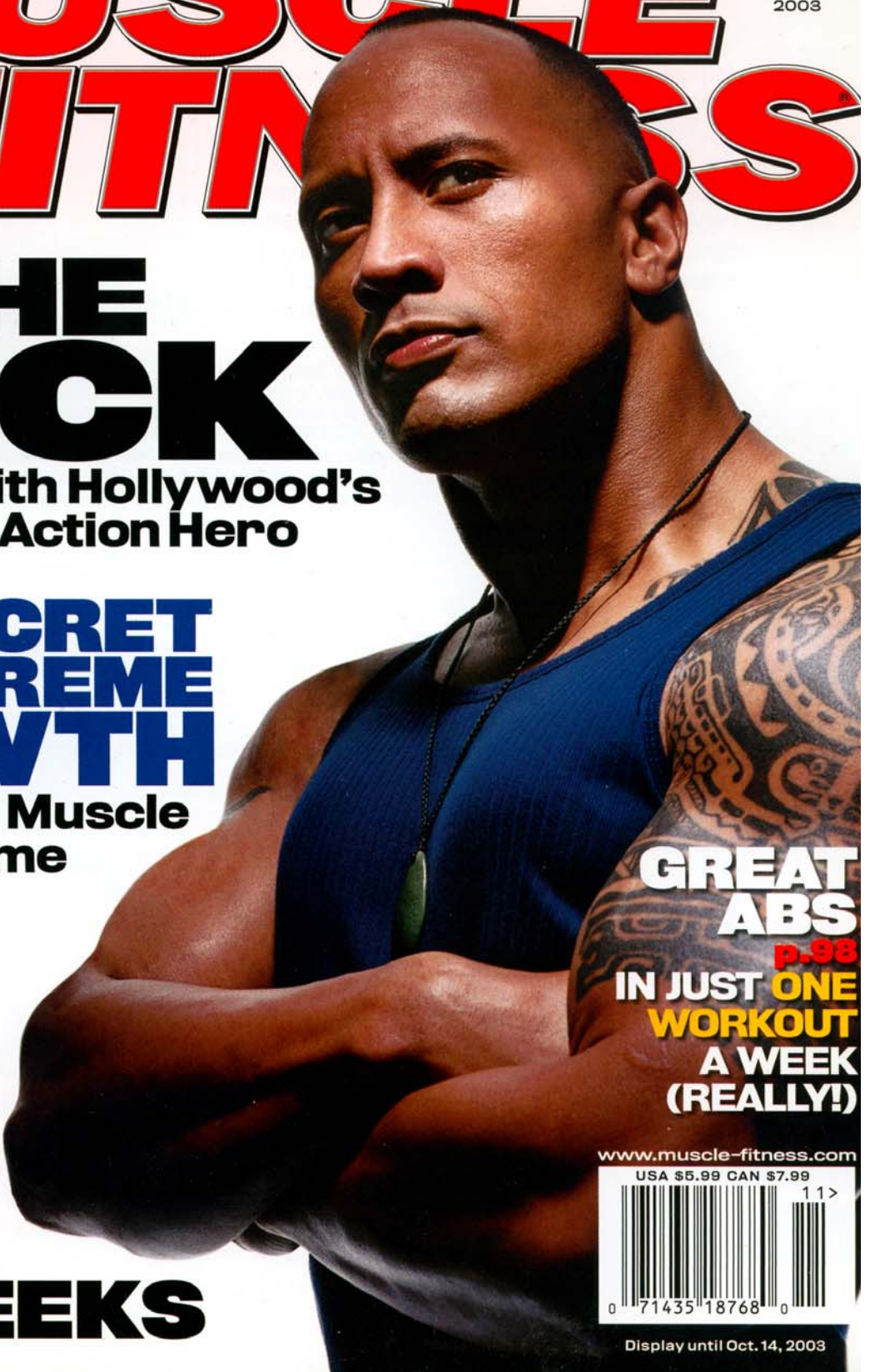
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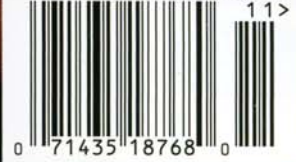
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A black and white photograph of a muscular man wearing a cap, looking down. In the foreground, a dumbbell is visible with the brand name 'IVANKO' and the weight '35' on it. The background is dark, and the lighting highlights the man's physique.

TRAINING

SLOW TRAINING

M&F GIVES IT TO
YOU STRAIGHT UP.
**FAST OR SLOW
TRAINING** – WHICH
IS RIGHT FOR YOU?

» **The science of weightlifting** has always been a work in progress. Through trial and error, early resistance-training pioneers like Joe Weider and Bob Hoffman explored the many questions surrounding how to make muscles bigger and stronger. With a systematic approach, they developed the field of weightlifting science. Their labs were the gyms, their guinea pigs were themselves and the others they trained, their tools were dumbbells, barbells, benches and

THE PROS OF TAKING IT SLOW

By Fredrick Hahn,
ACE-certified instructor

Slow-rep training (taking about 7–10 seconds for each phase of the lift) has numerous benefits that separate it from more conventional rep speeds.

>>OPTIMAL TENSION. Slow repetitions allow you to more evenly apply the resistance to the muscle by reducing the momentum throughout the ROM. This means the muscle does more of the actual work, improving overall strength and mass.

>>FIBER STIMULATION. Slow reps taken to failure stimulate both slow- and fast-twitch muscle fibers. This is the best way to optimize muscle growth.

>>HEAVY WEIGHT. Contrary to popular belief, you don't have to use lighter weights when you use slow reps. The number of reps you perform isn't what's important; what matters is the total time the muscle is under tension. Science on the subject dictates a 30–90-second window for best results.

>>HIGH INTENSITY. Training with slow reps is painful. Fact is, any high-intensity strength-training program is uncomfortable to perform. You'll only get around this fact by lowering the intensity level — which in turn will decrease muscular stimulation and your results.

>>EFFICIENCY. Slowing your reps requires a more intense effort. This creates a more efficient bodybuilding program by reducing the amount of volume (both sets and sessions per week) you need.

>>INJURY PREVENTION. Training with slow reps creates a safer training environment by reducing the sudden forces at the start and end of a repetition — great for preventing injuries as well as rehabilitating present injuries.

>>ENHANCED SPORTS PERFORMANCE. Research shows that training slowly doesn't make a person slow, nor does speed training with weights make a person fast. Strength training is supposed to make a person stronger, and stronger muscles are capable of producing more force. Slow training will make you very strong, athlete or not. Athletic performance is enhanced if you perfect your given sport or skill and improve the strength and endurance of your muscles.

cables. And rapidly, thanks to their efforts, our knowledge of muscle growth and strength expanded.

No longer is a rep just a rep; you can make muscles respond faster depending on how you manipulate your reps, sets, weights and rest periods. Of course, certain camps still believe in certain methods, and repetition speed is just one of the many variables debated in weightlifting science. This month we place slow-repetition training on trial. On the defense team is Fredrick Hahn, an ACE-certified instructor, owner of the gym Serious Strength Inc. (New York City), a 20-year veteran of the industry and noted expert in high-intensity strength training. Prosecuting slow-repetition training is William J. Kramer, PhD, CSCS, renowned weightlifting scientist from the University of Connecticut (Storrs).



Before the debate proceeds, we must first clarify our designations. How fast is fast, and just how slow is slow? For our purposes, slow repetitions refer to positive and/or negative reps that are purposely performed at a rate slower than four seconds. Most slow-rep programs use a rate of 8–10 seconds. Anything done at a rate of four seconds or faster will be considered a normal to fast training speed. With that clear, let the trial begin. Check out the arguments on the edges of these two pages to open and close this case.

SLO MO WITH CHARLES

Once you're familiar with the good and the bad of slow-rep training, you can decide for yourself whether it can help you reach your training goals. If so, heed the advice of our expert witness, Charles Glass, trainer of bodybuilding champions like Gunter Schlierkamp and Chris Cormier. Here's the low-down on the slowdown from a man who knows it well.

While slow reps can be effective with many bodyparts, Glass believes they work best with legs, chest and shoulders, in that order. As for which exercises to do slow reps with,

SIZE

STRENGTH

SAFETY

ATHLETICISM

Glass says: "Compound movements done on a machine. For legs, leg press or hack squats. For shoulders, shoulder machine press. For chest, machine press."

After a thorough warm-up, perform slow reps first in your routine, when you're strongest, and use about half the amount of weight you would normally use. "Your rep speed should be eight seconds on the positive and eight seconds on the negative," Glass advises. "The slow positive is the hardest; it makes the muscle burn like nothing you've ever felt — it's a deep-down burning sensation." Do 8–10 reps for one set.

"Usually one set of one exercise will suffice," Glass says. "For those who can handle it, maybe two sets or even three. Sometimes we follow up with a second exercise for that body-part using slow reps — but only for those whose muscles can handle it, and only on rare occasions, just to shock the muscle."

BODYBUILDERS LIKE SLOW REPS BECAUSE THEY KNOW IT'S WORKING BY THE WAY IT FEELS AND WHAT IT DOES TO THE MUSCLE

Keep in mind that this isn't something you want to do all that often. "At certain points in training, we may go twice a week," Glass notes. "Usually we just throw it in every once in a while at random." In his opinion, there's no question that it works. "All the bodybuilders like slow reps, because they know it's working from the way it feels, and what it does to the muscle — it pumps up like nothing else and super-fast," Glass reports. "And they see results fast as well." **M&F**

*Fredrick Hahn is an ACE-certified instructor, owner and founder of Serious Strength Inc. (www.SeriousStrength.com, 212-579-9320), a Slow Burn personal training center in Manhattan, New York, and co-author of the best-selling book *The Slow Burn Fitness Revolution* with Michael Eades, MD, and Mary Dan Eades, MD.*

William J. Kraemer, PhD, CSCS, is a professor in the department of kinesiology at The University of Connecticut, Storrs, and editor in chief of the National Strength and Conditioning Association's (NSCA) scientific publication, The Journal of Strength and Conditioning Research.

THE CONS OF SLOWING DOWN

By William J. Kraemer, PhD, CSCS

The effectiveness of slow-rep training depends on your training goals. Just be sure that what you expect from it is what you'll get.

>>MUSCLE SIZE. This is most likely your prominent goal in the gym. While there's some concern that much lighter weight is being handled, slow reps do force the muscle to do more work with a given amount of weight — and that equals a better contraction, and possibly better growth. Don't forget, muscle grows best when you use a variety of techniques. Slow-rep training, used on occasion, may aid this process.

>>FAT LOSS. If you're trying to melt fat, slowing down your reps isn't the way to do it. A recent study found that a slow-rep workout resulted in lower heart rates and energy expenditure both during and after a slow-rep training session as compared to normal-speed weight training. Fewer calories burned during and after a workout means less fat burned in the long run.

>>STRENGTH. If you're training for strength, slow reps may not be best. Here you need to use heavy weights (six reps or fewer) and attempt to lift the weight as fast as possible. Even if the weight moves slowly, it's different from slow-rep training, where you deliberately lift the weight slowly. Slow reps have two strikes against them for strength: 1) You can use only about half the amount of weight you could normally lift for the same amount of reps, and 2) you may not get much strength carry-over from the super-slow speed to the faster speed with which you normally lift.

>>POWER. If power is what you're after, again, slow-rep training isn't for you. Because power is the ability to produce force as quickly as possible, training with slow reps probably won't do much to enhance yours. This has to do with what is known as training specificity — you train, on the field and off, as specifically for your sport as possible. To optimize power, you have to train with fast, explosive reps.

>>MUSCLE ENDURANCE. For building muscle endurance, slow reps get the green light. With slow-rep training, a set may typically last up to 90 seconds. That's a fairly long set — about the time it takes to complete 15–20 regular-speed reps — which we call muscle endurance training.