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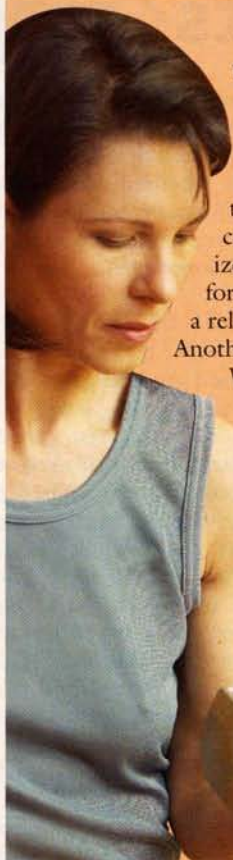
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How to **PROFIT** from
Functional Training

fitness Q&A

By Matt Brzycki

What is high-intensity training?



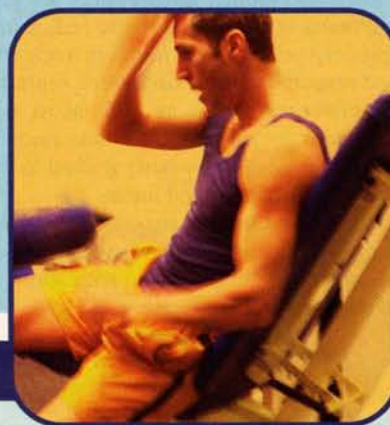
The term “high-intensity training” appeared in trade publications as early as 1973. The acronym “HIT” became fashionable in 1988 with the publication of a newsletter that was geared toward that method of training.

Since it was first popularized more than three decades ago, there have been endless interpretations, variations and applications of HIT. Nevertheless, most versions of HIT have several common denominators. As the name implies, HIT is characterized by intense, aggressive efforts, with each exercise typically performed to the point of muscular fatigue or “failure.” HIT calls for a relatively low number of sets (often only one set of each exercise). Another characteristic of HIT is the emphasis on progressive overload: Whenever possible, an attempt is made to increase either the repetitions that are performed or the resistance that is used from one workout to the next. With safety as a major concern, HIT doesn’t include fast-speed (or “explosive”) repetitions or exercises, so momentum doesn’t play a significant role in raising the resistance — all repetitions are performed with a controlled speed of movement. Finally, HIT involves brief workouts with a minimum amount of recovery time between exercises/sets.

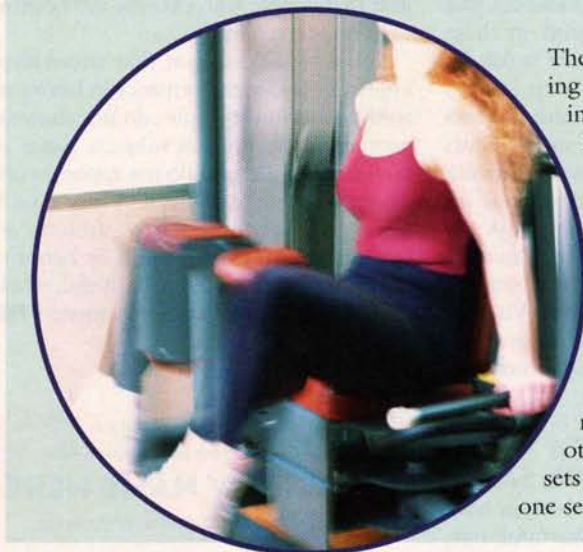
In short, HIT places an incredible workload upon every major muscle in the body and, at the same time, stresses the circulatory and respiratory systems. Furthermore, HIT can be used to improve strength in a safe, effective and time-efficient manner. **FM**

How long of a recovery should be taken between HIT sets?

As noted, HIT involves a minimum amount of recovery time between sets. This short recovery interval enables an individual to maintain a fairly high heart rate for the duration of the workout. The length of the recovery interval that’s taken between sets depends on a person’s level of fitness. The recovery period needn’t be structured, timed or predetermined. Initially, however, a recovery time of perhaps three minutes may be necessary between efforts; with improved fitness, the pace should be quickened to the point where an individual is moving as rapidly as possible between sets. **FM**



Is performing only one set of an exercise effective?



The overwhelming majority of scientific evidence indicates that single-set training is at least as effective as multiple-set training. An exhaustive literature review in 1998 by Drs. Ralph Carpinelli and Robert Otto of Adelphi University, New York, N.Y., and later reviews by Carpinelli, examined all studies that compared different numbers of sets (dating back to 1956). Collectively, their research found five studies that showed multiple-set training was superior to single-set training, and 57 that did not. And two of the five studies that concluded multiple-set training was superior to single-set training involved only one exercise.

So, the basis for performing single-set training — or a relatively low number of sets — has powerful and compelling support in the scientific literature. Incidentally, numerous authorities have advocated single-set training since the early 1970s. Dan Riley, a veteran strength coach with more than 20 years of experience in the National Football League and another eight at the collegiate level, notes, “Your goal must be to perform as few sets as possible while stimulating maximum gains. If performed properly, only one set is needed to generate maximum gains.” **FM**

Matt Brzycki is coordinator of recreational fitness and wellness programs at Princeton University, N.J. 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@fitnessgmt.com.