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Yes! You Do Burn Fat During Resistance Exercise

There is now concrete evidence that fat burning happens during and after weight training.

San Diego – June 29, 2009 – Am I burning fat while doing resistance exercise? This is a question that clients regularly ask personal trainers and group fitness instructors. Personal trainers and other fitness professionals can now answer that question with a very confident “Yes.”

Resistance training, because of its chief role in maintaining and/or increasing lean body mass (muscle), is an essential component of any weight management program. A recent [fat burning](#) Research column in *IDEA Fitness Journal* by Lawrence Herrera and Len Kravitz, PhD, reports details of a study that proves weight training is indeed fat burning exercise..

We know that muscle contributes significantly to resting metabolic rate, which is the energy expended to maintain all bodily functions at rest. We also know that a guiding principle of weight management is the attainment and maintenance of a “negative” energy balance (i.e., burning more calories than are stored) over extended periods of time. However, what physiological function does weight training actually provide to fat metabolism during and immediately following an exercise session?

Surprisingly, this investigation (led by Ormsbee and colleagues and originally reported in the *Journal of Applied Physiology*) is the first study to examine the specific effects of resistance exercise on adipose-tissue fat metabolism. This research team also examined the extent to which the body uses fat as a fuel during and after a resistance workout.

There are some very practical and important findings from this original investigation.

- First, energy expenditure was elevated for 40 minutes *after* the resistance training workout and was approximately 10.5% higher than during the corresponding 40 minutes on the control day. This means more calories were being burned after the weight training bout.
- Second, and perhaps more meaningfully, microdialysis data indicated that glycerol levels (the marker for lipolysis, or fat breakdown) were raised 78% *during* and 75% *after* the resistance training workout as compared with their levels during corresponding times on the control day. In addition, the indirect calorimetry data showed that fat oxidation was 105% higher after the resistance training exercise than it

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was after the control workout (see Figure 2). Thus, fat was definitely being used above resting values as a fuel (in conjunction with carbohydrate) during and after the resistance training bout.

“This study is the first to show directly that resistance exercise increases adipose-tissue lipolysis and thus helps to improve body composition,” say Herrera and Kravitz. “This boost in lipolysis is apparently due to the excitatory effect of resistance training on specific hormones (e.g., epinephrine, norepinephrine and growth hormone). As this study design was completed with trained male subjects, it is hoped that the methods and procedures will be completed with other subject populations (e.g., females, untrained persons, youth, seniors, overweight, etc.) in future research.”

You can access the full research article on [how to burn fat](#) in the IDEA Online Library:

<http://www.ideafit.com/fitness-library/yes-you-do-burn-fat-during-resistance-exercise>

About IDEA Health & Fitness Association

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