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Energy Bars: Are they worth the energy?

With all the energy bars on the market it may be difficult to decide which is right for you or if you even need one? How do you know when to use an energy bar? Are energy bars better for you than real food or are they just candy bars with a nutritious name? Let us start by considering the scientific literature surrounding fuel and activity.

After 60 minutes of continuous exercise your body has most likely used all of the glucose and glycogen stored in the muscles for energy and it is at this point that carbohydrates need to be ingested in order to re-fuel the muscles (2). Carbohydrates can be found in sports drinks (like Gatorade®), gels (like Gu®), energy bars (like Powerbar®), or real food. After an intense training session, protein and carbohydrates are needed to replenish lost glycogen stores and help the muscles rebuild and repair (2). Post-workout you can refuel with a protein/carbohydrate drink (like Accelerade®), a protein/carb bar (like Powerbar® Recovery), or real food (like a turkey sandwich).

So, which is better for you to choose a bar or a sandwich? Several studies have shown that real food is a better choice for fuel during exercise and recovery (1, 3). There is no nutritional advantage of an energy bar over real food (1, 3). If you are going on a long bike ride, for example, you would get the same necessary carbohydrate fuel from a bagel, a banana, or an energy bar. You will likely get more nutrients, found in its natural state, from real food.

Many athletes also think that a protein shake will provide them with the extra protein they need for recovery after a strenuous workout. In truth you can get the protein you need from eating foods such as chicken breast, turkey burger, or tofu stir-fry. While bars certainly provide carbohydrates and/or protein and some contain a “vitamin pill”, they do not offer the full range of nutrients that come from eating real food. In addition bars, often contain more fat and sugar than you would get from eating a piece of fruit, bagel or a chicken breast. Also, gram for gram, real food is cheaper.

One real benefit of bars is that they are convenient and portable. There are times, such as during a very long training run, where it may not be feasible to eat real food and bringing a bar is the best option. In these cases, you want to choose a bar that is high in carbohydrates, low in fats and not too high in fiber. But, be careful. In order to taste good, many bars contain large amounts of saturated fats and sugars and are often likened to a candy bar with a few vitamins added. A popular oil used in manufacturing energy bars is palm kernel oil because it stays solid at room temperature, which means the coating found on many bars won't smear all over your hands. That may sound good. However, the problem is that palm kernel oil is twice as saturated as lard—and likely to elevate your cholesterol and clog your arteries.

Make sure you read the labels and are getting the kind of bar you need. For a bar to be used during exercise it should contain 60 % of carbohydrate (2) and not contain too much fiber as this may cause GI distress while exercising. For a bar to be used for recovery, look for one that has a 3:1 ratio of carbohydrate to protein for maximum glycogen re-synthesis and to increase muscle protein synthesis (2). It is okay to choose a bar with more fiber during recovery and make sure you drink plenty of water to help with the digestion of both the fiber and protein. Always keep an eye out for saturated fats and total calories. Since some athletes may also be watching their caloric intake, it is a good idea to know how many calories you are consuming in bars and in sports drinks combined—it may be more than you think and it may be more than you need.

Bottom Line—while energy bars are convenient and portable, they do not provide any more energy or nutrition than real food. If at all possible, try to eat real food during and after a workout to give your muscles the energy and nutrients they need for exercise and for re-fueling.

Product	Energy (kcal)	Carbohydrate	Fat	Protein	Fiber
Powerbar	225	75%	8%	18%	3 g
Cliff Bar (peanut butter)	250	72%	14%	16%	4 g
Tiger Milk Bar	130	74%	17%	12%	1 g
Kellog Nutri-Grain Bar	140	77%	19%	6%	1 g
Nature Valley Granola Bar	180	64%	30%	11%	2 g
Milky Way Bar	270	61%	33%	3%	1 g
Snickers Bar	280	50%	45%	6%	1 g
Bagel (4 ½ inch)	275	77%	.05%	15%	2 g
Apple (medium)	81	100%	n/a	1%	4 g
Banana (medium)	108	100%	n/a	2%	3 g

Table 1

Nutritional Breakdown of Composition of Various Energy Bars and Other Foods

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