

Food for thought – Energy bars

Energy bars are convenient, portable sources of – energy, of course! Whilst it's almost equally straightforward to carry a few nuts or seeds and some dried fruit, the handful of rolled oats won't go down very easily unless they are bound together with some kind of syrup. You can make your own 'bars' however, they are the well-known runners' delight: flapjacks.

The amount of energy in a bar is expressed as kcal (or kJ). This figure tells us the sum of the energy available from carbohydrate, fat and protein. If you are looking for energy straightaway, either before exercise or in post-exercise recovery, then you need quick-release energy from carbohydrate. This is where the carbohydrate, and particularly the sugar, content is important. A high fat / lower carbohydrate bar will be high in calories (total energy) but it won't provide those calories as quickly.

If, on the other hand, you're trekking all day, higher fat bars will provide a concentrated and less bulky source of energy over the course of the day.

What about protein? Any cereal bar will contain some protein from the cereal grains and many will also have additional protein from nuts and seeds or in the form of soy or whey, to top up the protein content. Protein is important in the building and repair of muscle, and it has a role in improving the uptake of carbohydrate to replenish glycogen stores after exercise.

When I think of energy bars, my first thought is the 'sports bars' that are heavily marketed to all who exercise. I've always imagined these products to be expensive, as all that marketing has to be paid for, and so I've done a few comparisons against supermarket products.

It could be argued that sports bars and supermarket cereal bars are not equivalent; certainly the packaging is different but it is also true that supermarket foods often quote only 'macronutrients' (protein, carbohydrate, fat) plus fibre and sodium on their packaging. This excludes information on the vitamins and minerals provided by the bar's ingredients whereas the sports bar packaging emphasises the long list of vitamins and minerals within the bar.

Oats are oats, whether contained in a sports bar or a cereal bar, and so long as they are wholegrain, they will have the same constituents. There is a valid argument for some proteins, such as whey, being of higher quality and hence more nutritious than cereal proteins. If all of your protein is sourced from cereals then this is an issue but for most of us, the energy / cereal bar is a top up snack and not a main meal!

I've compared a selection of sports bars and a few supermarket offerings and, I think, justified my suspicion that my local grocery store provides an adequate source of energy bars for use as pre- and post- exercise snacks. I wouldn't want to rely on these bars as a major part of my diet, however, as their fat content is relatively high, although that does make them useful to carry on long

walks.

Mary Russell

Sports Nutritionist

	Nutrition Information (g per 100g)												
	Bar size	Energy		Protein	Carbohydrate		Fats		Fibre	Sodium (mg)	Cost per 100g	Packaging blurb	Gluten Free?
		kJ	kcal		Total	Sugars	Total	Sat's					
PowerBar - ENERGIZE (cherry cranberry twister)	55g	1536	363	10.8	71.0	42.0	3.5	0.6	2.0	380	£2.53	C2MAX dual source carb mix & minerals Before and during sport to deliver a scientifically developed combination of different carbohydrate sources Eat 1 bar within 60mins before sport 1 PowerBar delivers 38g carbohydrates	X
Lucozade SPORT Body Fuel - CARBOHYDRATE ENERGY Cereal Bar (mixed berry flavour)	50g	1461	349	4.9	72.4	13.3	6.5	2.8	5.8	trace	discontinued?	Helps you train longer and harder Fuel - eat one bar before or during your session to provide carbohydrate to fuel your muscles and maintain performance for longer	X
CLIF - Energy bar (crunchy peanut butter)	68g	1573	373	18.0	54.0	31.0	8.8	1.5	5.9	350	£2.24	Oat and peanut butter energy bar 11 vitamins and minerals listed	X
Science in Sport - Go Energy Bar (Cherry vanilla)	65g	1417	334	12.0	67.0	27.0	1.9	0.4	1.6	300	£1.85	High energy carbohydrate bar to help fuel before training and races Over 40 grams of carbohydrate per bar Made using natural fruit ingredients Ideal as part of carbohydrate loading regime	X

CLIF Builder's 20g protein bar (chocolate flavour)	68g	1667	397	29.4	44.1	29.4	11.8	7.4	5.9	338	£2.94	High in protein - no trans fat - 23 vitamins and minerals 20g of complete protein, vitamins and minerals to boost protein metabolism, and carbohydrates for sustained energy Low glycemic	may contain traces of wheat
MaxiNutrition promax 60g Chocolate Recover and Rebuild Bar	60g	1460	350	35.1	27.4	14.4	10.1	4.4	10.5	100	£1.82	High fibre protein bar for sports people Supports muscle repair and recovery 3.4g of saturated fat Perfect before or after exercise	may contain traces of wheat
Nature Valley - crunchy (ginger nut crunch)	42g	1919	457	7.8	64.0	27.6	17.6	3.1	5.9	280	£0.95	Wholegrain rolled oats and ginger	oat gluten only
Nature Valley - chewy trail mix (chocolate)	30g	1725	410	7.1	67.0	34.4	11.4	3.5	5.2	100	£1.33	Wholegrain oats, fruit and nuts Snack food to be taken on hikes or treks	X
Eat Natural (brazil, sultana, peanut, almond)	45g / 30g	1894	454	11.2	40.0	38.8	22.6	3.6	5.0	120	£1.40	Simple, wholesome ingredients	GF
TREK - Protein flapjack (cocoa oat)	50g	1901	454	18.3	43.9	27.9	22.1	10.3	3.9	300	£1.80	Flapjack with protein crunchies Pre & post exercise	GF