

**BREAKFAST, ENERGY, AND PROTEIN BARS**  
**Georgia 4-H Cotton Boll and Consumer Jamboree 2009**

Need a boost of energy in the morning or for an afternoon snack? Consider reaching for a breakfast or energy bar instead of candy! Breakfast bars don't need to be refrigerated and they are small, lightweight and fit easily in a purse or backpack. These bars have risen in popularity over the past few years, and there are many varieties to choose from, including some that are marketed for their protein value. With more options available, the decision process can be complicated. The following information can help you choose wisely:

Cost

The cost of breakfast, energy, and protein bars (BEP bars) varies a great deal by brand. Be sure to check your store ads for specials, and coupons might be available in newspaper ads and magazines. They may be less expensive per serving if you purchase a box of 6-12 bars rather than buying just one. The downside to this is that if you haven't tried a particular brand or flavor before, you take the risk of not liking it and having an entire box to deal with.

Serving Size

Check the number of ounces per serving when comparing the cost of different BEP bars. Most of the serving sizes will be listed in grams. There are about 28 grams in an ounce. The total cost may be the same for 2 packages, each containing 8 bars, but one of the packages may have larger bars than the other.

<b>Nutrition Facts</b>	
Serving Size 43 g	
<b>Amount Per Serving</b>	
Calories 200	Calories from Fat 68
% Daily Value*	
<b>Total Fat</b> 8g	12%
Saturated Fat 5g	27%
Trans Fat	
<b>Cholesterol</b> 0mg	0%
<b>Sodium</b> 120mg	5%
<b>Total Carbohydrate</b> 29g	10%
Dietary Fiber 1g	5%
Sugars 12g	
<b>Protein</b> 4g	
Vitamin A 1% • Vitamin C 1%	
Calcium 3% • Iron 8%	
*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.	
NutritionData.com	

Figure 1. Nutrition Facts label for a breakfast bar. Note serving size is in grams (g).

### Nutritional Value

“Energy” is another word for calories (kcal), and the calories in BEP bars come from carbohydrates, protein, and fat. The amount per serving of each of these nutrients is listed on the Nutrition Facts label. No matter what the label says, vitamins and minerals do not provide energy. The only nutrients that provide energy are carbohydrates, protein, and fat. Vitamins help your body **use** the energy in food, but they do not provide energy. Both carbohydrates and protein have 4 calories per gram. Fat has 9 calories per gram.

Most of the calories used by the body are in the form of carbohydrate. Glucose is a carbohydrate and it is the main fuel used by the brain. There are three main categories of carbohydrates – sugars, starch, and fiber. Fruit contains natural sugars. However, most of the sugars in our diet are from added sugar, like regular table sugar and high fructose corn syrup. The Dietary Guidelines for Americans recommends that Americans eat added sugars in moderation because they provide calories, but no vitamins or minerals. Added sugars are sometimes referred to as “empty calories” because of this. From a nutrition standpoint, it’s best to choose the product with the least amount of added sugar, but it may be hard to tell how much sugar is naturally present and how much is added because “sugars” on the Nutrition Facts label include both natural and added sugar. To tell if a product has added sugar, look for these words on the ingredient listing: sugar, high fructose corn syrup, honey, dextrose, fructose. There is no official definition of the term “net carbs” so it can be misleading and has no practical purpose.

***There are about 4 grams in a teaspoon, so a product with 20 grams of added sugar would have about 5 teaspoons of sugar ( $20/4 = 5$ ) and 80 calories in the food would come from added sugar ( $20 \text{ grams} \times 4 \text{ kcal/gram} = 80 \text{ kcal}$ ).***

Foods like bread, oatmeal, rice, and pasta contain or starch. When choosing starchy foods, it’s best to select those made with whole grains. Whole grains are better than refined or enriched products because they contain more natural vitamins and minerals and fiber because the product includes the bran and germ of the wheat kernel, not just the endosperm. The Dietary Guidelines for Americans recommends, “Make half your grains whole!” A BEP bar with whole grains is something good to look for! But how can you tell? For the best nutritional value, look for the word “whole” as the first ingredient on the Nutrition Facts label. Ingredients are listed in order (most to least). Some products say, “made with whole grains” on the front of the package, but whole grains may be the 3<sup>rd</sup> or 4<sup>th</sup> ingredient in the product. This product would not be as good a source of whole grain as a product where whole grain was listed first. The whole grain in BEP bars is usually whole wheat. Brown rice and oatmeal are also whole grains and usually do not have the word “whole” before them.

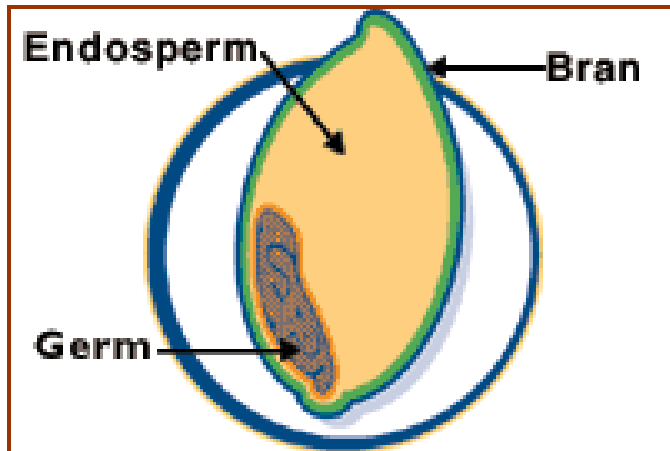


Figure 2. A whole grain contains all three parts of the kernel: the bran, germ, and endosperm, so whole grain products have more natural vitamins, minerals and fiber than refined products, which contain only the endosperm. Enriched products have some of the natural vitamins and minerals added back to the product.

Foods high in starch are in the grains group of MyPyramid. The website, [www.MyPyramid.gov](http://www.MyPyramid.gov) contains excellent information on that amount of grain group foods you need each day, depending on your age and activity level. For someone eating 2,000 calories a day, 6 ounces of grain foods is recommended. Breakfast or energy bars often provide 2 or more ounces of grain foods.

### Protein

BEP bars are often popular snacks for athletes who want to “bulk up” or have energy for the big game. Protein is an important nutrient for the body. It is best known for its ability to build and repair muscle, but it also provides energy in the form of calories. All proteins are made up of a combination of about 20 amino acids. Nine of these amino acids are essential in the diet because they cannot be made by the human body. The essential amino acids are histidine, isoleucine, leucine, lysine, methionine, phenylalanine, threonine, tryptophan, and valine. There are no benefits to the average, healthy person of supplementing the diet with these amino acids because most Americans get all of the amino acids needed for good health from the food they eat. Foods from animals contain all of these amino acids in the amounts needed by the body. However, vegetarians who eat no meat or dairy foods (vegans) need to plan their diets carefully to make sure they get enough of all of the essential amino acids.

Most of the protein in BEP bars comes from milk or the proteins in milk (casein and whey), nuts, seeds, and soy. There is also some protein in grains. Like carbohydrate, protein provides 4 kcal per gram. You might be interested in comparing the amount of protein in BEP bars to certain common foods. For example, a quarter-pound hamburger contains 22 g of protein, a hamburger roll 4 g, and a carton of milk (8 oz.) 8 g of protein. You can find the amount of protein in many common foods on the [www.nutritiondata.com](http://www.nutritiondata.com) website.

## Fat

Fat is another nutrient that provides the “energy” found in BEP bars. Some types of fat are better than others. Nuts and seeds contain mostly polyunsaturated fat, which is a good fat to choose. The Dietary Guidelines for Americans recommends that we eat get most of our fat from nuts and seeds and their oils, and eat less saturated fat. Coconut oil is a more saturated fat. Many health agencies recommend that we get 30% of our calories or less from fat. For someone eating 2,000 calories, that would be about 67 grams of fat. Total fat is listed on products, and that’s the first place to start. If a product has 30 grams of fat, that’s almost half the fat you need for the entire day. Keep that in mind when making other food choices! Don’t be misled by words like “lean” and “light.” Some products labeled “lean” might actually be higher in fat than similar products, so read more than just the front of the package. Always read the nutrition facts label to find out what you are really getting!

## B Vitamins and Minerals

B vitamins are needed by the body to use the energy in foods. Vitamins do not contain any calories. Vitamins are often added to BEP bars, so if you are eating vitamin-fortified BEP bars, you probably do not need to take another supplement. Check to see what percent of the Daily Value is added to the bar. The percent of the Daily Value on the Nutrition Facts label refers to the percent of a nutrient in one serving of the food. If you get 100% of the Daily Value, that’s the amount recommended per day, which is more than enough for most people. There is no proven benefit to getting more than this, and there is an Upper Limit for each nutrient that you should not exceed because some vitamins and minerals can be toxic.

## Summary

Breakfast, energy and protein (BEP) bars are popular for breakfast and between meals snacks. These bars are convenient because they require no preparation or refrigeration. They are small and lightweight and fit well in a purse or backpack. The nutritional value of these bars varies a great deal. Some have a lot of added sugar, making them more similar to candy bars. The sugar adds calories, but few vitamins or minerals. The cost of the bars also varies. Buying packages containing multiple bars is often a good choice. Ideally, a snack should contain foods from at least 2 food groups. Choosing a bar with fruit or nuts, or adding 100% fruit juice or a glass of milk, can make a complete snack. Finding BEP bars that meet your needs and keeping them in your pantry or backpack for quick “grab and go” snacks would be a better alternative to candy! Like candy, though, BEP bars are often sweet and sticky, so it’s a good idea to brush your teeth after eating them to avoid dental caries (cavities).

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## **Pajama Pants**

**Georgia 4-H Cotton Boll and Consumer Jamboree 2009**

Pajama pants are becoming more and more popular. Not only do consumers of all ages sleep in pajama pants, but they also lounge around in them. They can be purchased from a variety of stores and provide warmth as well as comfort.

Pajama pants come in many styles and range in prices. Brand name pajama pants can be expensive, while those from big outlets can be relatively cheap. They are made from a variety of fabric including cotton, jersey, flannel, knit, silk, fleece, etc. Cotton is the most common fabric used because it is comfortable, absorbent, and easy to care for.

To find the right pair of pajama pants, it is important to look for the right features for the individual. The consumer has to consider what season they will be wearing the pajama pants as well as the other characteristics they are looking for.

### **Features of Pajama Pants:**

- **Fabric and Finish-** The fabric of the pants determines how comfortable they will be to the owner. Some fabrics, like cotton, allow more ventilation and are easier to care for. Other fabrics, like fleece, provide more warmth for colder times during the year. Pajama pants may have special features like wrinkle resistant, flame resistant, and water resistant. Flame resistant is something that is important to look for when buying pajama pants for a small child. Choose the best fabric and finish for the wearer.
- **Characteristics-** Most pants are baggy in style but can be purchased to fit tighter if that is what the consumer prefers. Most consumers prefer for the pants to be roomy and loose to provide comfort. Pajama pants can fall to the ankles or be cropped below the knees. Do the pants have the appropriate characteristics to please the wearer? This is the main question to answer.
- **Design and Color-** Pajama pants come in a variety of colors, designs, and animations. The sky is the limit when it comes to design on pajama pants. A kid may want pants with their favorite cartoon character on them while their father may prefer plaid. Plaid is the most commonly found design. Darker colors hide dirt and stains better.
- **Size-** Size is an important feature for pajama pants. A consumer does not want the pants to be too tight, but also does not want them falling off! Comfort is important so finding the appropriate size for each individual is a must.
- **Drawstring or Elastic Waist-** A drawstring waist allows the wearer to tighten and loosen the pants. A slender person may want this feature in pants to assure proper fit. An elastic waist aids in adjusting pant size as well and is comfortable. An elastic waist may be important for a small child since they tend to pull on strings. Some pajama pants come with both an elastic waist and drawstring to provide maximum comfort and proper fit.

- **Pockets-** Pockets can aid the wearer with storage needs. They can also provide warmth for hands.
- **Price-** Pajama pants need to be affordable for the buyer. It is important to compare prices and purchase an affordable pair of pajama pants that also meet the needs of the consumer. Prices can vary widely so the consumer should look for good value for the money.
- **Other Features-** Look for good quality construction including reinforced seams and sturdy seam finishes. Pay attention to the care label. Pockets can also be an added plus for pajama pants.

Select a well-made pair of pajama pants that fits well. Consider the fabric and required care as well as the cost, color, and style. Using these tips, you are certain to be pleased with your purchase.



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<http://pubs.caes.uga.edu/caespubs/pubs/PDF/4H-facts-clothing.pdf>

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## **Sleeping Bags**

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Sleeping bags are used to keep people of all ages comfortable and warm when sleeping. They are also very popular for outdoor activities and camping as well as for sleepovers and activities like 4-H camp.

Sleeping bags come in many styles and range in price. When a consumer purchases a sleeping bag, they must consider the conditions they will be using it in. When choosing a sleeping bag, a consumer must choose the right one for them based on the sleeping bag shape, type, and fit. They must also choose the appropriate filling. There are other characteristics and features that must be considered like shell material, weight, temperature ratings, and color/design.

For a consumer to pick the right sleeping bag, it is necessary to look at the features that best suit the conditions the sleeping bag will be used in.

### **Sleeping Bag Shape, Type, and Fit:**

- **Mummy Bags-** The mummy bag is the main type of sleeping bag used for outdoor conditions. It provides the most amount of warmth out of all the shapes. These bags are narrow and have a hood. They force you to sleep on your back and do not leave much room to move around. By pulling the drawstring on the hood, only your mouth and nose are left exposed. This allows for the warmth from your body to be trapped in. These are usually light weight and are able to be compacted to a small size.
- **Semi-Rectangular/ Modified Mummy Bags-** The semi-rectangular bag allows for more movement than the mummy bag. These bags still usually have a hood, but are wider than the mummy bag. These sleeping bags are good for milder weather and heavier packers.
- **Rectangular Bags-** The rectangular bag provides the most room for maneuvering. They are bigger and bulkier than the other two and the worst for cold weather. They usually do not have a hood. These bags are best suited for camping in warmer weather.

**Sleeping Bag Fillings-** When evaluating sleeping bag fillings, a consumer should look for one that retains air pockets, is lightweight, is compact when compressed, quickly expands, can insulate even when wet, and does not give them a rash or is hypoallergenic. There are two types of fillings: down and synthetic fiber.

- **Down-** Down filling is the most preferred filling for sleeping bags. It is known for its good insulating qualities. It also takes up a small amount of space when it is compressed and fluffs back up easily. Down filling is usually goose down. Some of the problems with down filling are its ability to provide warmth when it gets wet and the fact that many people are allergic to it. It also tends to be more expensive and harder to take care of than synthetic fiber.
- **Synthetic Fiber-** Synthetic fiber filling does not provide as much warmth as a down filling, unless the sleeping bag gets wet. When wet, synthetic fiber filled sleeping bags can be wrung out. They then provide some warmth, compared to down, which provides

very little warmth when wet. Synthetic fiber filling is also less expensive than down filling. Sleeping bags made from these fibers are easier to take care of and can take more abuse than down sleeping bags. These are good for kids who may not be as careful with their sleeping bags.

### Other Characteristics and Features:



- **Shell Material-** The four main types of shell material are nylon, polyester, microfiber, and Dryloft. Nylon and polyester are coated with durable water repellent. This provides some water resistance. These both provide wind resistance because of the tight weave of the material. Microfiber provides better water and wind resistance than nylon or polyester. It has good breathability. It is also lighter than Dryloft. Dryloft is the most weather resistant. It has the best breathability. Dryloft can be very expensive.
- **Liner-** Liners of sleeping bags provide comfort and warmth. They usually come in cotton, silk, polyester, and fleece. Fleece provides the most warmth. Cotton is good for moderate temperatures.
- **Baffles-** Baffles make compartments in a sleeping bag so the filling does not bunch up. These are important to look for when buying a sleeping bag and need to be 5-6 inches apart.
- **Temperature Ratings-** Sleeping bags provide a temperature rating which is the lowest temperature that the sleeping bag can be used in to keep the average person comfortable. This is important to look at when the sleeping bag will be used in very cold weather.
- **Weight-** You want a sleeping bag to be as light as possible for the temperature that you will be using it in. The lower the temperature rating gets, the more the sleeping bag usually weighs.
- **Size, Circumference, and Volume-** When purchasing a sleeping bag, it is important to look at the size and circumference to make sure you will comfortably fit in it. The volume refers to how small the bag gets when it is compressed. If you are pressed for space, the volume is an important factor.
- **Zippers-** If a sleeping bag is going to be used in a place where there is potential for it to get wet, zippers need to be waterproof. This allows for heat to be retained.
- **Hoods-** Hoods are important because the majority of body heat is lost through the head. Some sleeping bags have hoods that can be attached when needed.
- **Collars-** Collars are important when sleeping bags are going to be used in very cold conditions. Many sleeping bags have attachable collars to provide additional warmth when needed.
- **Pillow Pockets-** Pillow pockets provide more comfort in a sleeping bag. They allow you to place an inflatable pillow or clothes in a pocket to form a pillow.

- **Color/Design-** Color and design provide a sense of style for a sleeping bag. This may be something that is important to consider when purchasing a sleeping bag for a child. They may want a sleeping bag with their favorite cartoon character on it. For adults, something to consider is that darker colors dry faster than lighter ones.

There are many things to consider when purchasing a sleeping bag. The condition that it will be used in is the most important factor to lead you to your purchase. Sleeping bags range in price, so researching a sleeping bag before you buy it is very important.

Resources: <http://www.backpacking.net/gearbags-tips.html#shell> (*Sleeping Bag Tips*),  
<http://www.abc-of-hiking.com/camping/sleeping-bags.asp> (*Sleeping Bags Types and Features*)

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## Student Credit Cards

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Credit cards are very appealing to students everywhere. They provide convenience and financial freedom. With some common sense and good habits, credit cards can be beneficial for students. Credit cards allow consumers to take part of many services in the market place, such as online shopping, buying books for school, and using credit cards for gas. Credit cards also give students the opportunity to establish good credit when used properly.

Credit cards can help students learn how to budget. However, they can also be dangerous if spending gets out of hand.

There are many credit card companies consumers can choose from. Companies offer different overall rates, terms, and detailed conditions. Some things to consider and compare when applying for credit cards are annual fees, credit lines, grace periods, late fees, the annual percentage rate (APR) and other costs of the card.

A credit card provides a means to purchase goods and services now and pay for them later. Credit cards have a limit, which is the maximum amount that can be charged to the card. This is different for each consumer. A good credit record can help a consumer obtain loans, additional credit, housing, and a job in the future when used correctly.

### Types of Credit:

- **Credit-** Receiving cash, goods, or services with an obligation to pay them later
- **Closed Credit-** Credit that you must repay in fixed payments
- **Open Credit-** Credit that you can use and repay at your own pace, so long as you pay the required minimum monthly payments

### Types of Credit Cards:

- **Revolving Credit Cards-** Allow a person to continually add to the balance owed as long as the person does not exceed a maximum credit limit. The person also has to pay a minimum amount back each month based on the total amount owed. Interest is charged on the unpaid balance. Interest rates vary from card to card and person to person. Cash advances usually have a higher interest rate.
- **Full Payment Credit Cards-** These cards require full payment at the end of the billing cycle. Usually, you do not have to pay interest, but are assessed an annual fee and additional fees in some cases.
- **Secured Credit Cards-** These are cards where the credit line is based on a deposit. For example, you deposit \$100 and get a \$400 credit limit. It is important to select a secure card that pays interest on your deposit and reports payments to a credit bureau.



- **Prepaid or Stored-Value Credit Cards-** These are money in the form of plastic. You pay a certain amount, say \$500, and get a card worth \$500. You can only spend what you paid. These are not reported to the credit bureaus, so they do not help your credit score. They often add fees for using ATM's to check your balance or withdrawal money. Also, some cards can only be used in designated stores, and may expire within a certain amount of time or months.
- **Single-Purpose Cards-** This is a credit card that can only be used at a specific company. These can be beneficial if a parent wants their child to have a card to buy gas and only gas, for example. Some allow for revolving credit and others do not, but in general, they do not require an annual fee.

#### **Types of Fees with Credit Cards:**

- **Cash Advance Fee-** A charge for making a cash advance, paid as either a fixed amount or a percentage of the cash advance. It is important to pay attention because credit card companies often have a high interest rate for getting cash in advance. A small cash advance can wind up being a big financial setback.
- **Late Fee-** This is a fee imposed as a result of not paying your credit card bill on time. Make sure to pay attention to the due date carefully because sometimes there is not only a due date, but a due time.
- **Over-the-Limit Fee-** This is a fee imposed whenever you go over your credit limit. These fees can be very expensive, so it is important to keep up with how much you have spent.
- **Penalty Rate-** This is the rate you pay if you don't make your minimum payments on time. Your balance could rise by as much as 10% if you do not pay your minimum payment on time.

#### **Ways of Calculating Balances:**

- **Average Daily Balance Method-** A method of calculating the balance on which interest is paid by summing the outstanding balances owed each day during the billing period and dividing by the number of days in the period. This is used by the majority of bank card issuers.
- **Previous Balance Method-** A method of calculating interest payments on outstanding credit using the balance at the end of the previous billing period. This method is simple but expensive.
- **Adjusted Balance Method-** A method of calculating interest payments on outstanding credit in which interest payments are charged against the balance at the end of the previous billing periods less any payments and returns made. This has lower interest charges than the previous balance method.

#### **Discounts and Promotional Tie-ins:**

- Many card issuers offer a variety of discounts, promotional tie-ins, and rewards to give consumers an incentive to use their credit card. In many cases, these discounts are offered so that consumers will pay less attention to the finance charges, annual fee, and grace period. When shopping for a credit card, remember to closely examine the cost of a credit card that provides many kinds of discounts or rewards. Some typical discounts that credit card issuers offer are: travel discounts or rebates, rental car collision insurance, airline frequent flier points/miles, cash rebates or merchandise discounts, and purchase protection that extends repair or warranty periods.

#### **Common Credit Card Terms:**

- **Credit Limit-** The maximum amount you can spend with your card. Your credit history, income and debts may determine your initial credit limit.
- **Grace Period-** The stated minimum number of days during which finance charges (interest) do not apply to new purchases if you pay your outstanding balance by the due date. You may be charged interest if you choose to pay for your purchases over an extended period of time.
- **Credit Bureaus-** Companies/agencies that keep files of all your credit information, including payment records, timeliness of payments, amounts owed on all credit cards, etc. This information remains in your file for up to seven years. Credit bureaus share your file with lenders who use it to decide future credit limits. You may obtain a free copy of your credit report up to twice a year upon request.
- **Annual Percentage Rate-** Your APR is the yearly interest you pay on your credit card balance.
- **Annual Fees:** Most issuers charge annual membership or participation fees. Some range from \$25-\$50. Some cards even charge up to several hundred dollars.

Credit cards can be very useful and convenient. It is important for a consumer to carefully read the terms and conditions that come with a card. It is also important to properly use a credit card, making sure to keep up with payments and the amount spent. Students can get into trouble using credit cards. They need to pick a card that best suits their needs by comparing different cards and the benefits the cards offer. Students need to be careful with their cards to avoid identity theft and fraud. When used properly, credit cards can provide students with many benefits as well as help them establish good credit.

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