I'm not a robot

The glycemic index (GI) and glycemic load (GL) refer to ways of measuring how certain foods might affect your blood sugar. GI and GL were originally developed to determine whichfoods were best for people with diabetes, but whether you have diabetes or not, these tools are useful for blood sugar management and better diet planning. This article will explore the similarities and differences between GI and GL and how your glycemic response influences your health and well-being. Illustration by Michela Buttignol for Verywell Health The glycemic index (GI) is a system of classification in which the glycemic responses of foods are indexed against a standard (white bread). It was introduced in 1981 by David Jenkins, MD, a scientist at the University of Toronto, to express how much dietary carbohydrates impact blood sugar (glucose) levels. GI is a numerical way of describing how carbohydrates in foods affect blood sugar levels. The GI ranges from 0 to 100, with pure glucose being given a value of 100. Processed foods made with refined sugar and flour such as candy, bread, cake,and cookies have a high GI, while whole foods such as unrefined grains, non-starchy vegetables, and fruits tend to have a lower GI. GI is categorized as follows: Low GI: 55 or lessMedium GI: 5669High GI: 70 or higher The glycemic load (GL) is a relatively new way to assess the impact of carbohydrate consumption on the rise of blood sugar in the body. It gives a fuller picture than GI alone. GL uses GI and the amount of total carbohydrates per serving of a specific food to estimate both how quickly a food causes blood sugar to rise and how much blood sugar levels will rise in total after eating. By taking GI and the amount of carbohydrates per serving into account, GL highlights what nutritionists have known for a long time: High or low GI does not necessarily equate to healthy or unhealthy. Most fruits, for instance, have a high GI, but low GL. Your blood sugar levels are dependent on many factors, including insulin levels, how quickly sugar is absorbed into your bloodstream, and how much sugar (glucose) is in a meal per serving. GI tells you something about how high your blood sugar could rise with certain foods, but it does not tell you how high your blood sugar will go when you actually eat the food. Thats where glycemic load comes into play. GL gives you a more accurate picture of how food impacts your blood sugar levels, considering the following factors: The types of sugar and starches in the foodThe way your food is preparedFat contentFiber and carbohydrate contentServing sizeRate of absorption and digestion of food products GL provides food's real-life impact on your blood sugar. Watermelon, for example, has a high glycemic index (80), but its low carbohydrate content per serving results in a glycemic load of only 5. GL is a great tool because you dont need to be a math whiz to calculate it. Dietary GL is calculated by the amount of carbohydrate contained in a specified serving size of the food multiplied by the GI of that food and divided by 100. (Mathematically, GL = GI available carbohydrate (g) /100) GL is categorized as follows: High GL: 20 or higherMedium GL: 1119Low GL:10 or less GL and GI estimate the rise of blood glucose in the body after eating a specific food. Generally, foods with a low GL have a low GI, whereas foods with an intermediate or high GL can range from very low to very high GI. GI is a significant factor in GL. The lower a food's GI, the slower blood sugar rises after eating that food. In general, foods that are higher in carbs and contain more processed ingredients have a higher GI. On the other hand, foods high in fiber or fat have lower GIs. GI alone does not tell the full story, because it doesnt account for the many factors that impact your blood sugar. GL represents the quantity and quality of carbohydrates in the overall diet and their interactions in the body. This is why GL is widely regarded as a more reliable tool than the glycemic index alone. Glycemic load offers information about how foods affect blood sugar and insulin. The lower a food's glycemic index or glycemic load, the less it affects blood sugar and insulin levels. Research shows that sticking to a low GL diet can play an important role in staving off type 2 diabetes and heart disease. Here is a GL reference list with many common foods based on their GL reference range. Foods with a low GL of 10 or less include: Hummus (per 30 grams)Green peas (per 80 grams)Carrots (per 80 grams)Black beans (per 150 grams)Lentils (per 150 grams)Fruits, such as watermelon, apples, oranges, pears (per 120 grams)Microwave popcorn (per 20 grams)Nonfat milk (per 250 grams)Reduced-fat yogurt with fruit (per 200 grams) Foods with an intermediate GL of 1119 include: Some cereals, like Special K (per 74.5 grams)Rice cakes (per 25 grams)Banana, ripe (per 120 grams)Pasta (per 180 grams)Sweet potato (per 150 grams) Foods with a high GL of 20 or more include: Instant oatmeal (per 50 grams)White rice (per 150 grams)Raisins (per 60 grams)Macaroni and cheese, boxed (per 180 grams)Baked russet potato (per 150 grams)Dates, dried (per 60 grams) Observational studies have yielded mixed results regarding the association of GI, GL, and adverse medical events. Studies show that carbohydrates are not bad in and of themselves. Rather, diets that are too high or too low in carbohydrates can be problematic. Eating carbohydrates in the form of whole foods, such as whole grains, legumes, fruits, and vegetables is better for your health than the carbohydrates contained in processed foods. Overall, research shows that eating a low glycemic load diet, especially one that is high in fiber and whole-grain foods, is considered beneficial for cardiovascular disease prevention and several other chronic diseases, such as type 2 diabetes. One study, the PURE (Prospective Urban Rural Epidemiology) study, looked at how GI and GL impact cardiovascular health in nearly 140,000 people. The PURE study found that higher GI and GL are associated with a greater risk of adverse cardiovascular disease events in adults with established cardiovascular disease. However, the study was limited by recall bias due to its observational study design. More follow-up studies are needed to verify these results. Glycemic index explains how carbohydrates may affect blood glucose levels, whereas glycemic load takes into consideration every component of the food as a whole, giving a more real-life picture of a foods impact on your blood glucose levels. Both of these tools are valuable in blood sugar management and diet planning.Glycemic index vs glycemic load: two nutritional terms that leave many scratching their heads.When managing blood sugar levels it is important to learn about the glycemic index and glycemic load.Understanding Glycemic IndexIf you've ever wondered how different foods impact your blood sugar levels, then the glycemic index (GI) is worth exploring. The GI measures how fast a carbohydrate turns into sugar and affects blood sugar.In essence, it's a ranking system for carbohydrates in food items. It shows how quickly each one can affect your glucose levels compared to pure glucose - which has an assigned value of 100 on this scale.Ranking Foods Based On The Glycemic IndexFoods are ranked from low to high based on their GI values. For instance, those with scores below 55 are considered to have 'low' GIs; these typically include whole grains and vegetables that have minimal effect on our body's insulin response.Moving up the ladder, we find foods with moderate GIs between 56 and 69. Think sweet potatoes or honey here.These may cause slight spikes in blood sugars but nothing too alarming if consumed within reasonable limits.Finally, at the top tier lie items scoring above 70, known as 'high' glycemia products like white bread or sugary drinks, which tend to increase rapidly upon consumption, leading to a higher risk of diabetes and other health issues over time.Exploring Glycemic LoadThe world of nutrition can be a maze, especially when understanding terms like glycemic load.Defining the concept of Glycemic LoadGone are the days when we only focused on how quickly carbs turned into sugar. Welcome to an era where concentration matters. In simple words, glycemic load is about considering both quality and quantity.It's not just about how quickly the carbs turn into glucose, but also taking into account the amount of carbs in your food.Digging Deeper Into The Science Of GLA low glycemic load score would be between 0 and 10.Moderate scores between 10 -20 suggest that these foods do have some influence over our blood sugar levels due to higher carb content or faster conversion rates - for example, whole wheat bread.Scores above 20 indicate danger territory: These items will likely lead toward rapid spikes within our bloodstream, as seen with sugary drinks such as soda pop, which has a whopping value of around 30.How does it differ from the Glycemic Index?The critical difference lies in perspective. glycemic index looks at speed; glycemic load focuses on volume. In other words, while GI tells us 'how fast,' GL informs us 'how much.' Think watermelon: It has a high glycemic index (~72), suggesting its sugars get absorbed rapidly.But here's the twist.The typical serving size doesn't pack many carbohydrates overall, leading to a modest total amount getting converted, resulting in a lower glycemic load number (~8).This shows why looking solely at GI might sometimes give misleading impressions about the impacts of certain foods on the body's response.Comparing Food Items Based On GI And GLIt's essential to understand that the same food can rank differently on the glycemic index (GI) and glycemic load (GL). This difference is due to how these two measures assess a food item's impact on blood sugar levels.Glycemia values for standard food items like potatoes and cornTo illustrate, let's consider an example: Cornbread. Cornbread has a moderate glycemic index of 69, but its glycemic load soars at 25.5, making it high in glycemic load.The deceptive nature of relying solely on GI or GLDepending only on one measure could lead you astray when trying to maintain stable blood glucose levels.A prime example would be watermelon; despite having a high glycemic index value of around 76, it falls into the low category regarding its glycemic load score, which is just about five.In contrast, while oats may have a lower glycemic index, standing at approximately fifty-five, they carry a significant amount - thirteen points precisely - under the glycemic load measurement method.Thus, it potentially causes a more substantial increase in your body's sugar content after consumption compared to what might initially seem based upon first glance using a single metric approach instead of both simultaneously.We must consider how quickly carbs convert into sugars (GI) and how much carbohydrate there is in each serving size(GL).High intake on either the glycemic load or index often leads directly to negative impacts such health conditions including obesity, diabetes, and heart disease, among othersImportance Of Considering Both GI And GL In Diet PlanningConsidering the glycemic index (GI) and glycemic load (GL) of your food choices is essential in achieving healthier eating habits.The Impact Of High GI/GL Foods On Health:Foods with high glycemic indices or loads can cause rapid spikes in blood sugar levels. This roller coaster effect isn't just harmful to those managing diabetes; it also contributes to energy crashes and cravings that could lead to overeating.In contrast, foods low in these metrics have less impact on blood glucose levels, providing more sustained energy throughout the day.Better Blood Sugar Control: A diet rich in low-GI foods helps maintain steady blood sugar levels, reducing the risk of type 2 diabetes and heart disease.Satiety & Weight Management: Low-to-moderate GI/GL diets keep us feeling fuller longer, aiding weight management efforts.Elevated Energy Levels: No sudden peaks or troughs mean a consistent energy supply, keeping fatigue at bay.Fries vs. Chips and Glycemic IndexFries and chips differ in preparation and taste. Fries are typically deep-fried potato strips, while chips are thinly sliced and can be made from various sources. Regarding glycemic index, deep-fried fries tend to have a higher value than baked or air-dried chips.However, portion size and overall dietary composition also impact blood sugar levels. Choosing nutrient-rich options and moderating consumption is essential for a proper diet.ConclusionUnderstanding both the glycemic index (GI) and glycemic load (GL) is key for making informed dietary choices.While the GI measures the speed of carbohydrate conversion to sugar, the GL considers both quality and quantity.By opting for low-GI and low-GL foods, individuals can better manage blood sugar levels and support overall health. Glycemic load and glycemic index are variables that measure the actual impact of foods that contain carbohydrates on blood glucose levels. The insulin index of a food demonstrates how much it elevates the concentration of insulin in the blood.These terms are often used by people who are suffering from diabetes to control their blood sugar levels.Many diabetic patients actually monitor and control theirblood sugar levels by avoiding high-carb foods altogether and choosing to adopt a low carb diet.In a related studythat compared this type of diet to a diet with an average carb intake,over 90% of the individuals in the low-carbohydrate group reduced or totally eliminated their need for diabetes medications.The Glycemic IndexThe glycemic index is simply a measurement of how quickly a carbohydrate food raises blood sugar compared to the same amount of glucose.The amount measured is the area under the two hour curve when blood glucose is measured for two hours after a meal. The bigger the area, the faster that particular carbohydrate raises blood sugar.If a food has a high glycemic index (GI), it means that the food is digested and turned into blood sugar quickly. If it has a low GI, it happens slowly.The way the scale works is that 50 grams of glucose is assigned a GI score of 100. Then other foods are measured and compared to glucose. For example, a food that raises blood sugar 40% as much as glucose is assigned a score of 40.Many things can affect the glycemic index of a food. For example, it will be lower if consumed with fat or fiber. It will also depend on the individual and the ripeness and cooking method of the food.Foods with a lower glycemic index (fruit, whole grains) tend to be healthier than foods with a higher glycemic index (candy, white bread), and eating foods with a low GI is correlated with improved health. This has a lot of exceptions, however.The Glycemic Index Scale:Low: 55 or lessMedium: 56-69High: 70 or higherCheck out this database if you want to find the glycemic index or glycemic load of particular foods.The Glycemic LoadAnother system known as the Glycemic Load (GL) is much better for predicting blood glucose levels after meals because it also incorporates serving sizes.It is simple to figure out the Glycemic Load if you already know the GI of a food and its carbohydrate content. You simply multiply the Glycemic Index with the amount of carbohydrates in grams and divide by 100.Glycemic Load (GL) = Glycemic Index (GI) * Carbs in grams / 100For example, apples with a GI of 40 and a carb count of 16 grams: GL = (40 * 16) / 100 = 6.4Therefore foods with a high GI and/or high carb content have a higher glycemic load, while foods with a low GI and/or low carb content have a lower glycemic load.The Glycemic Load Scale:Low: 10 or lessMedium: 11-19High: 20 or higherThe Insulin IndexThe Insulin Index measures blood levels of insulin after meals.These levels are usually correlated with glucose levels, with some exceptions. Some protein-containing foods such as beef can cause a higher insulin response than certain carbohydrate-containing foods.The Insulin Index measures the insulin response to various foods, relative to the insulin response to white bread, which is assigned a score of 100.A food that raises insulin more than white bread has a score over 100, while a food that raises insulin less than white bread has a score of less than a hundred.Some examples: porridge with an insulin index of 40 is much less than white bread, potatoes with 121 are higher than white bread, and beef with a score of 51 is less than white bread but higher than porridge.Featured photo credit: pixabay via pixabay.com January 11,2023 | There are several ways that people with diabetes track their food intake in order to optimize their overall management plans. While many individuals find that with time, they gain a pretty strong understanding of what foods raise their blood sugar levels, which ones lower them, and what foods are stabilizing, it can take some trial and error. To help reduce the risk of unnecessary complications or spikes/drops in blood glucose levels, many people stick to a low carb diet at first. However, there are ways to learn how certain foods will affect your body before you eat them. Some of these include the glycemic index and the food insulin index. To help you differentiate between the various methods of diabetes management, well go over the differences between the glycemic index, the food insulin index, and carb counting. What is the Glycemic Index (GI)?The glycemic index (GI) is a type of food-related scale that is used to provide information on how fast your body converts carbohydrates into glucose. Its commonly used as a tool when people are trying to manage their blood sugar levels and is particularly beneficial for those living with diabetes.The rating system goes from zero to 100 and the lower the GI of a food, the less it impacts your blood glucose. Low GI includes foods that are 55 or lower, medium GI incorporates foods between 56 and 69, and high glycemic index foods are those that have a 70 or above. Foods are rated based on how fast they are digested and thus, how much they affect glucose levels.Some examples of foods with a low GI include: Vegetables - sprouts, romaine, spinach, arugula, zucchini, spaghetti squash, watercress, squash, broccoli, kohlrabi, brussels sprouts, red cabbage, mustard greens, sweet peas, russet potatoes, sweet potatoes, etc. Bran - rice bran, wheat bran, oat bran, etc. Fruit - avocados, bananas, apples, prunes, raisins, figs, orange, etc. Nuts and Seeds - walnuts, almonds, Brazil nuts, pinon nuts, cashews, peanuts, pistachio nuts, pumpkin seeds, flax seeds, chia seeds, sunflower seeds, etc. Whole Grains - popcorn, oats, quinoa, barley, rye flour, wild rice, millet, bulgur, brown rice, etc. Berries - raspberries, elderberries, blackberries, blueberries, strawberries, gooseberries, boysenberries, etc. Beans and Legumes - black beans, lima beans, garbanzo beans, lentils, kidney beans, navy beans, pinto beans, etc. Foods that are processed or refined tend to have higher GI ratings while whole foods that are filled with protein, healthy fats, or fiber have a lower GI. Having a high GI means that food is digested and turned into blood sugar quickly, which may result in a spike of blood glucose levels. However, pairing a food thats high in fiber with a high GI food can help lower the GI of the total meal, thus decreasing the speed of digestion. Understanding Glycemic Load (GL) The glycemic load (GL) of a food focuses more on the number of carbs in one serving. Since foods that are low in GI can still be high in carbs, its important to use both when managing your diabetes. Similarly, if youd like to eat something with a high glycemic index, thats okay. By limiting your serving size to a small portion, the glycemic load is smaller, thus reducing your glucose response. What is the Food Insulin Index? The insulin index is a type of scale that measures blood levels of insulin following a meal. This allows you to better understand your insulin response to certain foods and thus, make a better prediction of when youll need to administer diabetes medications. The elevation of insulin concentration is measured based on a two-hour period after the food has been ingested. The insulin index is based on the bodys insulin response to white bread, which has a score of 100%. However, there are still foods that may raise insulin more than white bread, which would result in a score that surpasses 100. For example, potatoes tend to have a score of about 121 while oatmeal can have an insulin index of as low as 40. Some foods that have an insulin index lower than 100 include: Vegetables tomatoes, broccoli, carrots, cauliflower, peas, pumpkin, sweet potatoes, spinach, etc. Fruit apples, avocados, dates, bananas, grapes, oranges, peaches, pears, watermelon, etc. Nuts and Seeds walnuts, peanuts, etc. Protein eggs, chicken, pork, ham, beef, white fish, tuna, bass, lamb, etc. Bran and Whole Grains oats, barley, couscous, bran, brown rice, rice, etc. Beans and Legumes baked beans, kidney beans, chickpeas, lentils, etc. Diary brie, cheese, cottage cheese, milk, butter, yogurt, etc.The insulin index also takes into account food portions and caloric content, but tends to be more effective at diabetes management than the glycemic index. This is because the insulin index takes into consideration how certain foods affect your blood sugar levels, not just their carbohydrate content. Although many foods along the glycemic index and insulin index are correlated, certain high-protein foods can elicit a response regardless of their lack of carbohydrates.This can help individuals better manage their diabetes and reduce their reliance on diabetes medication over time. The insulin index also takes into consideration how someone feels after theyve consumed and digested their food. These satiety levels can further help individuals plan for diabetes management success.The primary limitation with the insulin index scale is that many foods arent included in the database. This can make it difficult to rely on as a single-entity resource. If youre not sure which option to use, talk to your doctor for recommendations based on your lifestyle habits and other diabetes management techniques. What is Carb Counting for Diabetes?Many people tend to focus on good, old-fashioned carb counting for diabetes management. Carb counting can help you control your blood glucose levels, but it will depend on the type of carbs youre consuming. There are three primary types of carbs: starch, sugar, and fiber.StarchStarch is a type of naturally occurring component in plants, including fruits, vegetables, and whole grains. Beans, legumes, oats, barley, quinoa, squash, and other whole grains have healthy amounts of starch and are usually filled with several beneficial vitamins and minerals. Starches also tend to have some degree of fiber in them. When eating grains, make sure to avoid most of the refined options as these tend to be higher in carbs with the beneficial components removed. Instead, try to focus on products that have been labeled whole grain or whole wheat.FiberFiber is another beneficial carbohydrate that can help you with diabetes management. Its derived from plant-based foods and helps clean out your digestive system. There are several benefits of eating a diet thats high in fiber if youre living with diabetes. It can help lower cholesterol levels, stabilize blood glucose, reduce the risk of cardiovascular disease, and help you maintain a healthy weight. You should be eating about 14 grams of fiber for every 1,000 calories you consume. Try to get your fiber from natural sources before turning to supplements. However, if youre struggling, talk to your doctor about the best fiber supplement to incorporate into your diet.SugarSugars are the worst type of carbohydrate for your body. However, naturally derived sugars do provide a degree of benefit, as they can help fuel your muscles and bodily functions. Processed or added sugars, on the other hand, can be extremely dangerous and are associated with a range of health conditions. Foods that are high in added sugars can cause dangerous spikes in your blood sugar levels and increase your risk for several diabetes-related complications. Its important to limit foods with added sugar and be mindful of the amount of natural sugar you consume during the day.If you have type 2 diabetes, reducing the amount of sugar you consume can drastically lower your reliance on or need for diabetes medications. In fact, a study found that over 90% of individuals who ate a low carb diet either reduced or completely eliminated their need for additional medications. However, as always, its important to work with your doctor and continue to monitor your blood glucose levels to stay safe. How to Choose the Best Diabetes Management Plan for Your NeedsHow you choose to manage your diabetes doesnt necessarily matter. The important thing is finding something that works for you and is sustainable for your lifestyle. If this means utilizing the glycemic index, great! If youd prefer to stick to carb counting, thats fine too. Just make sure that youre eating a diverse range of foods to help your body get the nutrients it needs to function at its bestespecially if you decide to follow the GI. Remember, just because a food has a lower GI doesnt mean that its healthier.Alternatively, you could focus on following a diabetes-friendly meal plan or diabetes-approved diet. There are several different options, each of which contains notable benefits. Always talk to your doctor prior to changing your diet or beginning a new eating regimen. Its important to take added precautions when living with diabetes or any other underlying condition to avoid unnecessary complications.To help you properly manage your diabetes effectively and live a well-rounded life, Byram Healthcare has a range of continuous blood glucose monitors. We also offer diabetes support and educational materials to give you everything you need for comprehensive care. The glycemic index is a measure of how quickly and how high your blood sugar rises after eating food.But its not nearly as important as a less famous measure called the glycemic load. And the glycemic load is something worth knowing about.When you eat any food- especially carbohydrate and to some extent protein- your blood sugar goes up. (It hardly goes up at all when you eat fat.) In response to the rise in blood sugar, your pancreas secretes insulin, whose job is to act as a traffic cop and escort the excess sugar out of the bloodstream and into the cells where- in an ideal world- it can be used for fuel. Blood sugar (and insulin) both gradually go back down to pre-eating levels, and in a few hours you repeat the whole process.Problem is, this is anything but a perfect world.We overeat high sugar carbohydrates, which quickly drives our blood sugar up into the stratosphere. The pancreas sends out a ton of insulin in an attempt to lower blood sugar, but most of us are pretty sedentary, so our muscle cells arent interested in taking it in. Insulin knocks on the doors of the muscle cell walls and the cells say, sorry dude, we dont need any sugar, our guys going to be sitting at the computer all day, go somewhere else. (Sugar winds up going to the fat cells, which are far more welcoming.) Meanwhile both blood sugar and insulin have been raised, setting you up for hypertension, fat storage, hunger, cravings and mood crashes when your sugar eventually does fall.Not a great situation by any means.To measure the effect of food on blood sugar, scientists came up with the idea of the glycemic index. Using pure glucose as a standard (with an index of 100), they tested 50 gram portions of digestible carbohydrate and measured how quickly and how high blood sugar rose in reaction to eating them. By eating low-glycemic index foods you presumably could avoid the blood sugar roller coaster.But there are two big problems with using the glycemic index as a guide to eating.One, it only applies to a food eaten alone- in other words, a banana, not a banana with peanut butter.Two, and more important- the glycemic index doesnt take into account portion size.The glycemic index of 50 grams of spaghetti is moderate, but no one eats 50 grams of spaghetti- at least they dont at the Olive Garden, or at any home cooked Italian meal Ive ever seen!And the glycemic index of 50 grams of carrots is high but no one eats 50 grams of carrots (theres 3 grams of carbohydrate in a carrot).Glycemic load takes into account portion size. Carrots- which have a high glycemic index- actually have a very low glycemic load. Spaghetti- which has a moderate index- has a very high glycemic load.Glycemic load is all you need to pay attention to, because it tells you whats going to happen to your blood sugar in the real world. (Even then, it still refers to food eaten alone. Add some fat to your carbs peanut butter on an apple, for example and youve just lowered the glycemic load.)Glycemic index is a pretty useless indicator of anything, but glycemic load is meaningful. (You can find a definitive of glycemic index and glycemic load of food here.) Bottom line: eat as little sugar as possible and go easy on the foods that turn into sugar quickly- like cereals, breads, pastas and anything white (except chicken, cauliflower and mushrooms!)When it comes to sugar one thing is very clear: Less is more and zero is better. You 100% can trust Simples science, whether its in-app, on the blog, or on our social media. We take science very seriously, so all of our content is written using accurate, credible, and reliable research. Its also reviewed thoroughly by our experts before being released and refreshed regularly to keep it up to date.Carbohydrates are an important part of our diets, but not all carb sources are the same.When you consume foods and beverages containing carbs, the body breaks down these carbs into glucose, a form of sugar, which is then used for energy.Glucose that enters the bloodstream from digested food causes a rise in blood glucose levels. Besides sweets, various other foods can also mess with blood sugar levels and have the same impact as high-carb diets.What do you do to ensure you consume the right amount of sugar? You measure the glycemic index.What is the Glycemic Index (GI?)The glycemic index (GI) indicates how much a certain type of food may affect blood sugar levels. The index helps regulate high blood sugar surges and maintain appropriate energy levels throughout the day.Some individuals with type 2 diabetes, those on low-carb diets, and those attempting to lose weight may find it useful.Foods with a high glycemic index may cause blood glucose levels to rise more rapidly, leading to an increased demand for insulin from the body to help manage this rise.A surge in blood glucose also leads to hunger pangs, carb cravings, and lethargy or fatigue. Low glycemic foods can help prevent all these effects.What are the Low Glycemic Foods and Their Benefits?Foods are considered to have a low GI if their Glycemic Index (GI) value is 55 or less. If the GI is between 55 and 69, it is moderate, and Anything higher than 70 is high.Food items such as veggies and fruits do not consistently test at the same GI level, further complicating matters.Some specific fruits or vegetables may contain more carbohydrates or sugars than others. Other variables, such as the ripening and duration of storage, can also influence the GI outcome.The benefits of consuming low glycemic foods are:Reduced blood sugar levelsWeight lossWeight maintenanceLower risk of heart diseaseLower risk of type 2 diabetesLow Glycemic Food ListImportant: The Glycemic Index (GI) measures how quickly a food causes blood glucose levels to rise compared to pure glucose, not white bread or sugar. The glycemic Index value considers the overall nutritional quality of the foods rather than how much food is eaten, how the food is prepared, and the nutritional content of foods. (1)1. Low-Glycemic FruitContrary to popular opinion, the natural sugar in fruits is sufficient to justify their inclusion in a well-balanced diet.Furthermore, people who control their blood sugar levels can benefit from fruit.Some sweet fruits have a low glycemic index, indicating that they could benefit blood sugar management.Additionally, most fruits are high in fiber and other plant chemicals beneficial to ones health. If you are looking for low glycemic index fruits, go no further than the ones listed below.ApplesBlueberriesCherriesCoconutCranberriesDried apricotsGrapefruitOrangesPeachesPearsPlumsStrawberriesUnder-ripe banana2. Low-Glycemic VegetablesVegetables are an essential component of a nutritious and well-balanced diet.Furthermore, because of their low carbohydrate, high fiber content, high protein, and mineral content, they are the greatest choice for diabetes control, weight management, and a variety of other health benefits.Most vegetables have a very low glycemic index, except starchy vegetables, which have high glycemic index scores. The vegetables listed below are safe to include in your low-glycemic food list.ArtichokesBeetBell PeppersBok ChoyBroccoliBrussels sproutsCabbageCarrotsCauliflowerCeleryCollardsCrookneck SquashCucumbersEggplantGreen BeansGreen PeasJalapenosKaleLettuceMushroomsOnionsSerranoSnow PeasSpinachTomatoesZucchini3. Low-Glycemic GrainsGrains are versatile, nutrient-rich, healthy, easily available, and easy to store.The good news is that many have low glycemic levels, and you can use them to flavor different dishes without worrying about a spike in your blood sugar. Our top picks include the following: grains and cereals.BarleyBlack riceBuckwheatBulgurOatsQuinoaWild riceRyeAll-bran and Fiber One cerealOat bran and rice bran cerealsSourdough breadWheat tortillaWhole grain pastaWhole-wheat kernelsWhole-grain pumpernickel bread4. Low-Glycemic Dairy Products and Dairy-Substitute ProductsDairy products are great sources of calcium, proteins, and vitamins. However, some dairy products, especially those high in lactose, can affect glucose levels, which is a consideration for individuals with diabetes.Whole milk contains lactose, which can cause intolerance in some individuals and may lead to digestive issues. The alternatives are plant-based dairy substitutes with low GI.The following dairy products are safe to add to the low glycemic list.Blue cheeseBrie cheeseCheddar cheeseCottage cheeseFeta cheeseGoat cheeseMozzarella cheesePlain yogurtRicotta cheeseSkim, low fat, and whole milkSoymilkSwiss cheeseYogurt5. Low-Glycemic LegumesLegumes are great for blocking glucose control; fortunately, many have a low GI. A few examples include:ChickpeasKidney beansPinto beansBlack beansNavy beansLima beansSplit peasBlack-eyed peasLentilsEdamameRoasted soybeansHummusBean dipTofuSoy-based meat substitutes6. Low-Glycemic Nuts and SeedsNuts and seeds are rich in fiber, vitamins, antioxidants, minerals, and other nutrients. Furthermore, they also help regulate and lower blood pressure, while maintaining acceptable sugar levels.They also have a low glycemic index, but it is advisable to consume them in moderation. The best picks include:AlmondsCashewHazelnutsMacadamiasPeanut butterPeanutsWalnutsNut butterChia seedsFlax seedsPumpkin seedsSunflower seeds7. Dark Chocolate8. Low Glycemic Fats and OilsAccording to a study, patients with type 2 diabetes who incorporated healthy fats and oils into their diets had much better control of cardiovascular disease risks and improved glycemic control. Low glycemic oils and fats includeOlive oilAvocado oilSesame oilFlaxseed oilFish oil9. Low Glycemic DrinksAdhering to a low glycemic diet includes both foods and drinks. Drinks with low GI include:Plain waterHerbal teaFlavored waterLow-fat milkFruit juice in moderationCoffee in moderationHigh Glycemic Foods You Should AvoidYou should avoid the following foods if you are on a strict low glycemic diet.White riceWhole wheat breadWhite breadCereal barsBreakfast cerealsPotatoesFriesChiosRice crackersPineapplesWatermelonFruit yogurtsStarchy veggiesSconesDoughnutsWafflesLicoriceLucozadeJellybeansOat milkRice milkPastaSoft drinksFinal ThoughtsIf you have diabetes, foods with a high glycemic index (GI) can make your blood sugar spike and then drop rapidly.The glycemic index goes from 0 to 100 and measures how quickly your body converts carbohydrates into glucose.Fortunately, a wide range of foods with a low glycemic index provides all the nutrients needed for good health and diabetes management.They are also good for weight loss management and minimizing the risks of heart disease.Printable Low Glycemic Foods List (PDF)CategoryFoodsCategoryFoodsLow-Glycemic FruitApples, Blueberries, Cherries, Coconut, Cranberries, Dried apricots, Grapefruit, Oranges, Peaches, Pears, Plums, Strawberries, Under-ripe bananaLow-Glycemic VegetablesArtichokes, Beet, Bell Peppers, Bok Choy, Broccoli, Brussels sprouts, Cabbage, Carrots, Cauliflower, Celery, Collards, Crookneck Squash, Cucumbers, Eggplant, Green Beans, Green Peas, Jalapenos, Kale, Lettuce, Mushrooms, Onions, Serrano, Snow Peas, Spinach, Tomatoes, ZucchiniLow-Glycemic GrainsBarley, Black rice, Buckwheat, Bulgur, Oats, Quinoa, Wild rice, Rye, All-bran and Fiber One cereal, Oat bran and rice bran cereals, Sourdough bread, Wheat tortilla, Whole grain pasta, Whole-wheat kernels, Whole-grain pumpernickel breadLow-Glycemic Dairy Products and Dairy-Substitute ProductsBlue cheese, Brie cheese, Cheddar cheese, Cottage cheese, Feta cheese, Goat cheese, Mozzarella cheese, Plain yogurt, Ricotta cheese, Skim, low fat, and whole milk, Soymilk, Swiss cheese, YogurtLow-Glycemic LegumesChickpeas, Kidney beans, Pinto beans, Black beans, Navy beans, Lima beans, Split peas, Black-eyed peas, Lentils, Edamame, Roasted soybeans, Hummus, Bean dip, Tofu, Soy-based meat substitutesLow-Glycemic Nuts and SeedsAlmonds, Cashew, Hazelnuts, Macadamias, Peanut butter, Peanuts, Walnuts, Nut butter, Chia seeds, Flax seeds, Pumpkin seeds, Sunflower seedsDark Chocolate-Low Glycemic Fats and OilsOlive oil, Avocado oil, Sesame oil, Flaxseed oil, Fish oilLow Glycemic DrinksPlain water, Herbal tea, Flavored water, Low-fat milk, Fruit juice in moderation, Coffee in moderationHigh Glycemic Foods You Should AvoidWhite rice, Whole wheat bread, White bread, Cereal bars, Breakfast cereals, Potatoes, Fries, Chips, Rice crackers, Pineapples, Watermelon, Fruit yogurts, Starchy vegetables, Scones, Doughnuts, Waffles, Licorice, Lucozade, Jellybeans, Oat milk, Rice milk, Pasta, Soft drinksSee AlsoVegetarian Soup RecipesLow Sodium Fast FoodsScarsdale Diet Plan3000 Calorie Meal Plan800 Calorie Diet PlanPegan Diet Food ListIs Grapefruit Keto?No Sugar Diet Food ListList of Keto VeggiesLow Carb Lunch Ideas Prev Article Next Article Glycemic load and glycemic index are variables that measure the actual impact of foods that contain carbohydrates on blood glucose levels. The insulin index of a food demonstrates how much it elevates the concentration of insulin in the blood.These terms are often used by people who are suffering from diabetes to control their blood sugar levels.Many diabetic patients actually monitor and control theirblood sugar levels by avoiding high-carb foods altogether and choosing to adopt a low carb diet.In a related studythat compared this type of diet to a diet with an average carb intake,over 90% of the individuals in the low-carbohydrate group reduced or totally eliminated their need for diabetes medications.The Glycemic IndexThe glycemic index is simply a measurement of how quickly a carbohydrate food raises blood sugar compared to the same amount of glucose.The amount measured is the area under the two hour curve when blood glucose is measured for two hours after a meal. The bigger the area, the faster that particular carbohydrate raises blood sugar.If a food has a high glycemic index (GI), it means that the food is digested and turned into blood sugar quickly. If it has a low GI, it happens slowly.The way the scale works is that 50 grams of glucose is assigned a GI score of 100. Then other foods are measured and compared to glucose. For example, a food that raises blood sugar 40% as much as glucose is assigned a score of 40.Many things can affect the glycemic index of a food. For example, it will be lower if consumed with fat or fiber. It will also depend on the individual and the ripeness and cooking method of the food.Foods with a lower glycemic index (fruit, whole grains) tend to be healthier than foods with a higher glycemic index (candy, white bread), and eating foods with a low GI is correlated with improved health. This has a lot of exceptions, however.The Glycemic Index Scale:Low: 55 or lessMedium: 56-69High: 70 or higherCheck out this database if you want to find the glycemic index or glycemic load of particular foods.The Glycemic LoadAnother system known as the Glycemic Load (GL) is much better for predicting blood glucose levels after meals because it also incorporates serving sizes.It is simple to figure out the Glycemic Load if you already know the GI of a food and its carbohydrate content. You simply multiply the Glycemic Index with the amount of carbohydrates in grams and divide by 100.Glycemic Load (GL) = Glycemic Index (GI) * Carbs in grams / 100For example, apples with a GI of 40 and a carb count of 16 grams: GL = (40 * 16) / 100 = 6.4Therefore foods with a high GI and/or high carb content have a higher glycemic load, while foods with a low GI and/or low carb content have a lower glycemic load.The Glycemic Load Scale:Low: 10 or lessMedium: 11-19High: 20 or higherThe Insulin IndexThe Insulin Index measures blood levels of insulin after meals.These levels are usually correlated with glucose levels, with some exceptions. Some protein-containing foods such as beef can cause a higher insulin response than certain carbohydrate-containing foods.The Insulin Index measures the insulin response to various foods, relative to the insulin response to white bread, which is assigned a score of 100.A food that raises insulin more than white bread has a score over 100, while a food that raises insulin less than white bread has a score of less than a hundred.Some examples: porridge with an insulin index of 40 is much less than white bread, potatoes with 121 are higher than white bread, and beef with a score of 51 is less than white bread but higher than porridge.Featured photo credit: pixabay via pixabay.com The glycemic and insulin indices are both values to measure the food's nutrients' effects on the human body. These tools help guide people in choosing the best foods to improve glucose control and reduce the risk of type 2 diabetes or its complications (1, 2, 3).The glycemic index measures blood glucose levels in the first two hours after consumption of the given food, while the insulin index measures blood insulin levels.These values are calculated relative to a reference food, usually pure glucose or white bread.While the glycemic index is more widely used and provides valuable information, it has one shortcoming: the glycemic index only applies to carbohydrate-containing foods. The GI of foods without carbohydrates is considered to be 0. This is where the insulin index comes in.Unlike the glycemic index, the insulin index helps understand the effects of foods such as meats, dairy products, and low-carb vegetables. For example, beefsteak, containing no carbohydrates, has a GI of 0 but an II of 37 (4).That being said, the food's insulin and glycemic index values are usually correlated.Both glycemic and insulin index values fall on a scale of 0 to 100. Pure glucose and white bread have GI and II values of 100. By looking at all available reliable sources, we have created a glycemic index chart of over 350 foods and an insulin index chart containing II values of over 140 foods.On our page, you can also find more in-depth information about the definition and calculation of the glycemic index.Sources. Data provided by FoodStruct.com should be considered and used as information only. Please consult your physician before beginning any diet. Recall a time you ate a carb-heavy meal, like pasta with sauce, and how you felt afterward. The pasta probably left you feeling sluggish and tired, maybe unfocused.Now, think about a time you ate a colorful, leafy salad and how you felt after. Probably pretty different, right? While these examples are both extreme, the point is that theyre both made up of different kinds of carbs and have vastly different effects on blood sugar and mood.Two

Difference between glycemic index and insulin index. Glycemic index vs glycemic load. Glycemic index vs insulin index. What is the difference between glycemic index and glycemic load. Glycemic index vs glycemic load which is better.