**How Much Protein Should I Be Eating Each Day?** 

**How Many Carbs Should I Be Eating Each Day?** 

How Much Fiber, **Especially Soluble Fiber Should I Be Eating Each Day?** 

**How Much Healthy Fat** Should I Be Eating **Each Day?** 

By Howard L. Silverman, PhD, DC www.NeuroCalibrate.com

#### **Typical Total Daily Protein Requirements**

(Using egg equivalent units: i.e.: 1 EEU (egg equivalent unit) is 6.28g protein, which is the amount of protein in 1 large chicken egg, weighing 1.76 oz. out of its shell.)

Table entries are expressed in EEU (egg equivalent units). Protein = 6.28 x table entry.

(Male or female) Height:	<u>5'</u>	<u>5′ 6″</u>	<u>6'</u>	<u>6' 6"</u>
	(EEU)	(EEU)	(EEU)	<u>(EEU)</u>
Over 50 & Sedentary:	6	7	8	9
Prime of life:	7¾	9	10	11
Heavy laborer:	10	11½	13	14½

# Marginally enough protein:

Bedridden:

Absolute minimum: 4½ 5½ 6½ 7

Unhealthy below the above amounts:

# (Assuming 3 meals a day)

# Typical Protein Requirements per Meal

(Using egg equivalent units: i.e.: 1 EEU (egg equivalent unit) is 6.28g protein, which is the amount of protein in 1 large chicken egg, weighing 1.76 oz. out of its shell.)

Table entries are expressed in EEU (egg equivalent units). Protein = 6.28 x table entry.

(Male or female) Height:	<u>5'</u>	<u>5′ 6″</u>	<u>6'</u>	<u>6' 6"</u>
	<u>(EEU)</u>	(EEU)	<u>(EEU)</u>	<u>(EEU)</u>
Over 50 & Sedentary:	2	21/3	23/3	3
Prime of life:	2½	3	31/3	33/3
Heavy laborer:	31/3	11½	35/6	45/6

#### Marginally enough protein:

Bedridden:

Absolute minimum: 1½ 1½ 2½ 2½

Unhealthy below the above amounts:

# (Assuming 4 meals a day)

# Typical Protein Requirement per Meal

(Using egg equivalent units: i.e.: 1 EEU (egg equivalent unit) is 6.28g protein, which is the amount of protein in 1 large chicken egg, weighing 1.76 oz. out of its shell.)

Table entries are expressed in EEU (egg equivalent units). Protein = 6.28 x table entry.

(Male or female) Height:	<u>5'</u>	<u>5' 6"</u>	<u>6'</u>	<u>6' 6"</u>
	<u>(EEU)</u>	(EEU)	<u>(EEU)</u>	<u>(EEU)</u>
Over 50 & Sedentary:	1½	1¾	2	21/4
Prime of life:	2	21/4	2½	2¾
Heavy laborer:	2½	2%	31/4	3½

#### Marginally enough protein:

Bedridden:

Absolute minimum: 1½ 1½ 1½ 1½ 1½

Unhealthy below the above amounts!

The first two columns in either half of the following table show the correspondence between egg equivalent (EEU) numbers and actual grams of protein. The third number on a row, in either half of the table, is the amount of **protein** specified in the previous column multiplied by **3.6**. This represents the amount of carbs that can be managed by the quantity of insulin that the specified amount of protein, causes to be released into the blood stream. The number in the fourth column, in either half of the table provides the sum of the calories of both the **protein** and the **carbs** for that row. **Fat** will be addressed using the next table.

#### **Egg-Protein Equivalencts & Carb Balance Table**

$\frac{\text{Protein x 3.6}}{\text{Carbs}} = \frac{\text{Carbs}}{\text{Carbs}}$			<u> </u>	$\frac{\text{Protein x 3.6}}{\text{Carbs}} = \frac{\text{Carbs}}{\text{Carbs}}$				
			Carb plus					Carb plus
Egg - (Protein)			Protein	E	gg	- (Protein	)	Protein
Eq	<u>uivalents</u>	<u>Carbs</u>	<u>Calories</u>	<u>E</u>	qu	<u>iivalents</u>	<u>Carbs</u>	<u>Calories</u>
1	(6.3g)	23g	117	8	8	(50.2g)	181g	925
2	(12.5g)	43g	222	9	9	(56.5g)	205g	1,046
3	(18.8g)	68g	347	1	LO	(62.8g)	227g	1,159
4	(25.1g)	90g	469	1	.1	(69.1g)	250g	1,276
5	(31.4g)	115g	586	1	.2	(75.4g)	270g	1,382
6	(37.7g)	137g	699	1	.3	(81.6g)	295g	1,506
7	(44.0g)	159g	812	1	.4	(87.9g)	317g	1,617

The following pages add fat and address the total calories in a meal.

Total calories are the sum of the calories from the carb and protein which are then added to the calories attributable to the fat inherent in the food, plus healthy fat that is added to the food. In a protein-carb balanced food regime, excess protein is left out of the meals. The requirement for protein-carb balance forces the total number of carbs in a meal to be determined by the amount of protein, (in a fixed ratio of 3.6 carbs for each gram of protein), and healthy fat is added (in greater or lesser amounts) to the fat that is inherent in the food itself, in order to manage the calories and thereby control one's weight and girth. Carbs refers to all carbohydrates, not just sugars and certain processed carbs like white rice and unbleached white flour, while pretending that complex carbohydrates aren't really carbs that need to be taken into account. This is the latest of the insane concepts that are being foisted on the public by people who mean well, but don't understand that Orwellian doublethink logic just confuses people and prevents them from understanding the actual underlying principles. In some ways it makes slaves of them.

The practical truth appears to me to be that as long as one ingests sufficient **soluble fiber during a meal, white rice and unbleached white flour** are safe to eat, even though their micro nutrients have been stripped away. Vegetables and fruit are of course better, but not everyone's gut can handle high fiber loads. Flour from grain that has been sprayed by glyphosate is not safe, and genetically modified foods (GMO) foods are not safe! Foods from both categories are harmful and pose long term threats to your health!

Food that has been ingested to provide sufficient amounts of soluble fiber will have provided sufficient macronutrients along with the soluble fiber. Just make sure that you eat enough vegetables to have ingested a sufficient amount of soluble fiber with each and every meal!

The basic function of **insoluble fiber** is to sweep out the bowels to keep them from getting clogged up so that they can function properly. The basic function of **soluble fiber** is to provide a home for the wonderful bacteria that live in our gut to help us digest our food properly and to supply us with their waste products that just happen to be vitamins, and other nutritious substances that we need if we are to be healthy. In other words, we scratch their backs and they scratch ours. It's called symbiosis.

An Ayurvedic physician once reminded me that his people have been healthy and eating white rice for thousands of years. In fact, white rice contains significantly lower levels of toxic heavy metals than brown rice does. This is because heavy metals get concentrated into the rice bran. Organic California grown rice is reported to have the lowest arsenic levels of all the rice that is currently available. Rice grown in the arsenic enriched soils of the old tobacco plantations in the southern United States contains the most. If I were eating rice away from home, I would choose to eat white rice over brown rice. The purpose of eating rice, bread, or pasta is for the **carbs** and **protein** that these foods provide, and yes they provide a lot of **protein** along with their **carbs**. Just plan your meals to provide **protein-carb balance**. These foods can be very helpful for this purpose, especially if you are eating away from home.

Here are some rules of thumbs concerning fiber! Men need at least 30 grams of total fiber each day. Women should have at least 25 grams. However, much more important than total fiber is soluble fiber. In general, if you have ingested enough soluble fiber, you will have automatically ingested a sufficient amount of total fiber. But the reverse may not be true. This is because grains have lots of insoluble fiber and for many grains only 13% of their fiber is in a soluble form. It is easier and safer to keep an eye on the amount of soluble fiber being ingested with each meal and assume that the total fiber intake will be adequate, which it will. A good general rule is that a third of your fiber intake should be in the form of soluble fiber. This would equate to a minimum of about 10 grams of soluble fiber each day for a man and 9 grams of soluble fiber each day for a woman. This is about 3 grams or a little more per meal. A small to medium sized carrot with each meal will provide a third of your daily soluble fiber requirement. The table on the last page of this booklet provides information on the soluble fiber content of selected foods.

Essentially, since **carbs** and **protein** are fixed by a person's physical characteristics, **caloric** input is adjusted by varying the amount of **fat** in a meal. This is done by adding **sufficient fat** to account for **between 50% and 80% of the total calories**. Use the table that follows this brief discussion to make an estimate of how much fat you will need. Use that amount for from 5 days to a week and then check your weight again to see if it is going up or down. Then adjust what it's doing, if needed, by adding or subtracting about ½ tablespoon of fat per meal. Watch your weight for another 5 days to a week

and adjust again. It won't take more than a couple of weeks to have your weight holding steady, going up or going down on a steady basis, depending on your personal goals.

To check your weight, weigh yourself at the same time each day, wearing about the same amount of clothing. Then note the lowest weight over the past 5 or 7 days. You could calculate a 5 or 7 day lowest average or just note (even though you're checking your weight daily) if your lowest weight for each time period is rising or falling, and adjust your fat usage accordingly. Fat is high in calories so don't increase or decrease your daily fat intake by more than a tablespoon per day, and don't adjust it more often than once in a given 5 day or one week time period, depending on the time interval you've chosen. A dietary reduction of one tablespoon of healthy fat accumulates to about 800 calories if maintained over a week's time period.

It doesn't take much to adjust one's weight by making small changes in the amount of fat that a person is eating. One tablespoon of coconut oil provides 117 calories per tablespoon, and each tablespoon is a half of a fluid ounce, when measured by volume, and it weighs 13.6g or 0.48 oz. when it's weighed on a scale. Figure a half an ounce (½ oz.) for practical purposes. One tablespoon of any of the kitchen fats and oils provide about the same number of calories. An example of another healthy fat is beef tallow from a grass fed steer that hasn't been fattened-up on grain. 1 Tbsp. beef tallow provides 115 calories/Tbsp., effectively the same as coconut oil.

Other fats and oils are not mentioned because their **omega-6 fatty acid levels** are extremely high, resulting in inflammation throughout the body, **especially in the brain**, that cannot be easily managed by dietary omega-3 fats. Even the beef tallow or butter would not be considered appropriate unless they had been obtained from organically raised, grass fed, cattle to guarantee higher amounts of CLA fat.

The public has been misinformed about fat. First, it is not the ratio of omega-6 to omega-3 fats that appears to be important, but the magnitude of the overabundance of omega-6 fats that are ingested. Second, trying to rely on fish oil to smooth over this problem is a partial solution that hides the underlying problem by slowing down the cumulative damage from the chronic inflammatory problem that is associated with too much omega-6 fat being assimilated continuously, over a long time period. Hide the problem by stretching out the consequences and very few people, not even the doctors,

ever make the connection, and if you do, the perpetrators will dare you to try to prove anything.

Fruits, vegetables and grains provide very little fat! Though corn has some, it does have so much omega-6 fats that they can't be managed with a suitable choice of companion foods that can provide enough omega-3 fats for balance, like chia or flax seeds, urad dal, or rapini.

With the exception of coconut oil, vegetable fats provide huge amounts of omega-6 fats, and very few omega-3 fats. Yet the industry tries to claim that some of them have a lot of omega-3 fats, completely ignoring the fact that the higher amounts of omega-3 fats that they may have, pale in comparison to the gigantic amounts of omega-6 fats.

½ Haas avocado has about ¾ Tbsp. of a **healthy fat** that is a little high in **omega-6 fat** so pairing it with 0.20 to 0.25 oz. of **chia seeds**, ground and hydrated to form a gel should be considered. **Chia seeds**, especially **ground chia seeds**, soak up moisture so fast that it would be fool hardy to try to assimilate them without having first hydrated them with a short soak in some water. About 1 Tbsp. of water for each tsp. of **chia seeds** seems to be a minimal amount to use.

1 large egg has about 1/3 Tbsp. of **healthy fat**.

1 oz. of almost any type of nut provides about 1 **Tbsp. fat**, somewhere around 6 to 8 **carbs**, somewhere around **1 EEU of protein**, and **an exceeding large overabundance of omega-6 fats**. (Macadamia nuts are the main exception, with much less **omega-6 fats**.)

1 oz. dietary seeds provide about 1 to 2 Tbsp. fat, 2 to 6 carbs, ½ to ¾ grams soluble fiber and 5 to 7 grams of excess omega-6 fatty acids. This is a gigantic overabundance!

Later in this series, I will be presenting a talk specifically devoted to inflammation, and its dietary causes. I also intend to include some energy management techniques for those who can use food related abilities that they might have as light workers.

# **Total Calories, Including Calories From Both Inherent & Added Fat**

EEU	Balanced Carbs & Protein - Calories	+ 50% Fat <u>Calories</u>	= Total <u>Calories</u>	ı	EEU	Balanced Carbs & Protein + - Calories	· 80% Fat = <u>Calories</u>	Total <u>Calories</u>
1	117	117	234		1	117	468	585
2	222	222	444	 	2	222	888	1,110
3	347	347	694	I	3	347	1,388	1,735
4	469	469	938	I	4	469	1,876	2,345
5	586	586	1,172	ı	5	586	2,344	2,930
6	699	699	1,398	I	6	699	2,796	3,495
7	812	812	1,624	I	7	812	3,248	4,060
8	925	925	1,850	ı	8	925	3,700	4,625
9	1,046	1,046	2,092	ı	9	1,046	4,184	5,230
10	1,159	1,159	2,318	ı	10	1,159	4,636	5,795
11	1,276	1,276	2,552	I	11	1,276	5,104	6,389
12	1,382	1,382	2,764	ı	12	1,382	5,528	6,910
13	1,506	1,506	3,012	I	13	1,506	6,024	7,530
14	1,617	1,617	3,234	I	14	1,617	6,468	8,085

Even olive oil is highly questionable because it has **high amounts** of **omega-6 fatty acids**. Only **coconut oil** (**extra virgin** for use raw and with low temperature food preparation, and an **expeller pressed** version if higher temperature cooking is required), and **beef tallow** from organic pasture raised cattle, organic butter or even ghee (made from a healthy organic butter churned from the milk of a grass fed cow) are appropriate for humans to eat on a regular basis. This is because of the highly inflammatory nature of the extreme amounts of omega-6 fatty acids that other fats supply.

In addition, **beef tallow** is only appropriate if it is from cattle that have been raised exclusively on grass and had not been fattened on grain just before slaughter (even if organic grain had been used). This is because the omega fatty acid balance would have been shifted from a healthy to an unhealthy fatty acid balance and the **levels of conjugated linoleic acid (CLA)** will have also been significantly reduced. **CLA** provides one of the main advantages of eating healthy beef fat over all vegetable oils with the exception of coconut oil.

Because of the high quantities of **omega-6 fats** found in seeds, nuts and pseudo nuts like peanuts and cashews, **these foods should also be generally avoided**, with only occasional use, and then in conjunction with a goodly serving of chia or flax seeds to provide omega-3 balancing fatty acids. As mentioned macadamia nuts are an exception.

Carb and protein donors have been discussed earlier in this series of talks as has protein-carb balance, noted in the following table. The UNBC is an acronym for "unbalanced carbs" and the UNBC index value for each of the foods, has been placed in the last column of the table. The number is based on an index that I developed which is determined by the amount of carbs and protein that is provided by a normalized amount of each individual food and then increased or decreased in proportion to the quantity of the food that it is referring to. Carb donors have positive UNBC indices and protein donors have negative indices. This property reflects the effect that eating a specific food has on blood sugar. When foods are combined into a snack, dish, or meal, the net sum of their UNBC indices provides a measure of protein-carb balance. A combined, net UNBC index of zero reflects the minimal effect that ingesting a specific food combination would have on blood sugar, with the assumption that the person's carb limit had not been exceeded for the meal.

Carb limits have already been discussed in an earlier video, but a recap might be useful at this time. It appears that having a carb limit may be one of the earliest, subclinical signs of blood sugar dysfunction. In other words, if you have one, you're not truly healthy, no matter how healthy you think you are, and whether you're doctor says you're well or not! Not requiring medication is not a good criteria as an indication of health!

A carb limit represents the amount of total carbs that a person would have to eat at one sitting (during the course of a meal) before their blood sugar would rise to the point that it exceeds a concentration of 140 mg/dl. (In the U.S., blood glucose concentrations are measured in units of milligrams per deciliter, and a deciliter is one-tenth of a liter.) This is approximately the lowest concentration level that a person's body might start to excrete sugar (actually glucose) into the urine. (The blood sugar, concentration level at which sugar starts to be excreted into the urine varies from one person to another. For some people, it has been reported to be as high as 180 mg/dl. However, medical research suggests that glycation damage (which is damage from a chemical reaction of protein with sugar that depends on how concentrated the blood sugar actually is) doesn't occur until the blood's sugar concentration starts to exceeded 140 mg/dl and it is not clear whether glycation can occur at blood sugar concentration levels lower than sugar starts to appear in the urine or not. However, from what I've read, I strongly suspect that to assume that it starts at a concentration of about 140 mg/dl is a safe position to take.

Whether a person's **carb limit** is restrictive or not will depend on how many carbs that person is attempting to eat at a meal.

In this regard, it should be noted that a **carb limit** is diet sensitive, in that it is higher for meals that provide **protein-carb balance** and somewhat lower for unbalanced meals. This makes sense, since a **carb limit** represent the total **carbs** that need to be ingested in a meal before the blood sugar concentration rises to a level at which normal control is lost, and blood sugar excursions appear to be minimized when meals exhibit **protein-carb balance**.

A **carb limit** typically only becomes recognized as a problem when a medical blood test for blood sugar draws attention to blood sugar instability. Unfortunately, while the short term **"GlycoMark"** spiking test is now available, doctors not trained in functional

medicine tend not to use it, and probably don't know much about it. The next best thing to the "GlycoMark" test is to check for blood sugar instability, yourself, at home. While not perfect, you can check yourself fairly easily, and instructions will be made available on my website, at www.NeuroCalibrate.com.

Whereas using a ratio of **3.6** grams of **carbs for each gram of protein**, takes into account all of the **protein** and **carbs** in an individual food or food combination when considering **balance**, the **UNBC index** is a measure of the **unbalanced carbs** or **protein** that is not balanced within a food itself or by a food combination and therefore needs to be combined with additional food to **complete the balance**. Having an index that is additive (**with both positive and negative numbers**) makes it a lot easier to figure out the effect that eating specific quantities of both individual foods and food combinations would be expected to have on blood sugar. **This index makes healthy food balancing** feasible whereas calculating food **balance** based on ratios is too unmanageable.

An example from the following table will demonstrate this. Consider planning to eat **one** large chicken egg, which has a UNBC index value of -221/4. This could be nicely balanced with **5.90 oz. of cooked white potato**, which has a **UNBC index value** of **22**1/3. By itself the potato would definitely raise my blood sugar, and the people who use the glycemic index to judge whether a food is healthy would say not to eat potatoes because they have a high glycemic index of 85, (and indeed, if eaten by itself a potato would not be good for my blood sugar). Whereas, you would be told to eat a lot of ground beef because of its glycemic index value of 0. However, if I were to do that, my insulin would stay so high that my blood sugar would drop too low for me to think clearly. Since I'm a type-2 diabetic, "too low" is not below the 70 mg/dl level, where the physiology text books says that this can occur. Based on mine and other people's symptoms, it appears to be quite a bit higher. Anyway, the point is that if I prepare a meal with a chicken egg combined with 5.90 oz. of cooked white potato, the UNBC index values will balance to within \( \frac{1}{2} \) of a UNBC, and will be reflected in my blood sugar following a safe, normal response curve after the meal. My response to eating these two foods, in combination, is very different from what would be my response to eating either of these foods **separately**, and the **UNBC index** appears to accurately reflect what my body's actual response will be to eating these foods, or their equivalent, including food combinations with the same total UNBC.

Based on reports from others who have tested this, the above comments on the blood sugar effects of food combining appear to be universally true. Try the "Banana Test" series that I referred to in one of my earlier talks and test it for yourself. Information, on how to do these tests will be posted as a free download on my website, www.NeuroCalibrate.com.

A smaller egg would **balance** nicely with a little less potato. I'm developing tables to make it easy to design **balanced** meals. I could have substituted 1.20 oz., 85% lean, organic, pasture raised, grass fed, ground beef for the large egg and the numbers along with a person's blood sugar response would have been identical.

Note that in the above example, the egg provides 6.28 grams of protein (1 egg equivalent of protein), and the potatoes provide an additional 3.14 grams of protein (½ of an EEU (egg equivalent). The combination will therefore have 9.42 grams of protein (1½ egg equivalents), in addition to the 33½ grams of carbs and 1¾ grams of soluble fiber, which would be about ¼ of my daily soluble fiber requirement. If you don't take into account the protein found in all of the foods in a meal, it is very easy to end up with 1½ or 2, and possibly even 3 times the amount of actual protein being eaten by a typical person (between 5'6" and 6' tall) in their prime of life, who doesn't have a carb limit.

Even if you are tall enough to need to consume 9 or even 10 EEU (egg equivalents) of protein over the course of a day, that doesn't mean that you should be eating 9 or 10 eggs, or an equivalent in healthy ground beef to supply an equivalent quantity of protein, which would be 10.80 or 12.00 oz. over the course of a day. Since carbs and soluble fiber are required, only about ½ of the protein (maximum) should be supplied by a high protein food like meat, eggs, fish, cheese, milk, nuts, seeds, yogurt, or whey protein, etc. This means that only about 1 to 1½ actual chicken eggs (or the equivalent of, from 1.20 to 1.60 oz. of healthy organic ground beef) is really all that would be needed in a meal, and it can be even less if more vegetables or grains are consumed.

In regards to the following list of important foods that won't be mentioned elsewhere: Fruits, which are very strong carb donors, and some root vegetables like carrots and onions, which are moderate carb donors, are not on the following list, because, while they are excellent for adding to meals to help with protein-carb balance, they don't provide much protein which is what the following list is being used to demonstrate.

#### Quantity of selected foods that provides ½ EEU of Protein.

• <u>High Protein Foods</u> vary from strong to very strong protein donors.							
0.60 oz. raw weight (Grass fed organic) 85% lean <b>ground beef</b> – no carbs, no fiber -10% (1.20 oz. ground beef is equivalent to about 1 large egg and forms a ball about the size of a golf ball)							
0.88 oz. raw, (½ of a large) Chicken egg, no	shell  no o	carbs, no fiber	-111//8				
0.35 oz. roasted Chicken breast	no c	carbs, no fiber	-11				
0.45 oz. <b>Cheddar cheese</b>   m	inimal or no	carbs, no fiber	-111/4				
0.65 oz. raw weight <b>Cod Fish</b>	no c	carbs, no fiber	-111/5				
0.50 oz. raw <b>Almonds</b>	3g carbs	⅓g soluble fiber	<b>-7</b> <sup>4</sup> / <sub>5</sub>				
0.60 oz. raw Cashews	5g carbs	no soluble fiber	-6				
1.35 oz. raw Macadamia nuts	5½g carbs	3/4g soluble fiber	-6				
0.45 oz. raw, hulled, Pumpkin seeds	1g carbs	minimal soluble fiber	-10				
3.60 oz. raw weight, White mushrooms	3½g carbs	minimal soluble fiber	-8				
<ul> <li><u>Root Vegetables</u> vary from moderat</li> <li>5.90 oz. cooked White potato</li> </ul>	_	s carb donors. 1¾g soluble fiber	221/3				
• Grains vary from weak to moderate			421/				
4.05 oz. cooked Barley	25g carbs	1½g soluble fiber	13½				
0.80 oz. dry wt. Spelt pasta	16g carbs	%g soluble fiber	4½				
1.45 oz. slice "Rudi's Spelt" bread		¼g soluble fiber	6%				
3.20 oz. cooked White sticky rice	22g carbs	no soluble fiber	10¾				
<ul> <li><u>Fruit Vegetables</u> tend to be very we</li> <li>5.60 oz. Haas style avocado</li> </ul>			2½				
Green Vegetables vary from weak to strong protein donors, but mostly weak.							
3.95 oz. <b>Broccoli</b>	7½g carbs	1½g soluble fiber	-4				
3.30 oz. Brussels sprouts	8½g carbs	2g soluble fiber	-3				
5.80 oz. Cauliflower	8g carbs	1⅓g soluble fiber	-31/8				
4.30 oz. Collards	7½g carbs	2¾g soluble fiber	-4				
3.35 oz. raw Kale	9½g carbs	¼g soluble fiber	-1¾				
3.50 oz. Rapini (Broccoli raab)	2½g carbs	1¾g soluble fiber	-81⁄2				
• <u>Legumes</u> vary from very weak to we 1.35 oz. <b>Black turtle beans</b>	e <b>ak protein d</b> 9g carbs	onors. 1g soluble fiber	-21/5				