



# **Beginner's Guide to Food, Health & Nutrition**

# HEALTHKICK® BEGINNERS GUIDE TO FOOD, HEALTH & NUTRITION

HealthKick® provides this guide for information only and to assist in a more healthier lifestyle selection. You should always consult your physician and/or personal trainer before taking any form of diet, vitamins or supplements.

HealthKick® offers no claims to weight loss, muscle gain or fitness success. A healthy body also requires a balanced calorie controlled diet and regular exercise.

## WHAT ARE CALORIES?

Within a healthy, balanced diet and to maintain weight;

- An adult Man needs around 10,500kJ (2,500kcal) a day.
- An adult Woman needs around 8,400kJ (2,000kcal) a day.

These values can vary depending on age, metabolism and levels of physical activity, among other things.

Calories are a measure of how much energy food or drink contains. The amount of energy you need will depend on:

- your age – for example, growing children and teenagers may need more energy
- your lifestyle – for example, how active you are
- your size – your height and weight can affect how quickly you use energy
- Other factors can also affect how much energy you burn. For example:
  - some hormones (chemicals produced by the body) – such as thyroid hormones
  - some medications – such as glucocorticoids, a type of steroid used to treat inflammation
  - being unwell



## Calories and kilocalories

The term calorie is commonly used as shorthand for kilocalorie. You will find this written as kcal on food packets. Kilojoules (kJ) are the equivalent of kilocalories within the International System of Units, and you'll see both kJ and kcal on nutrition labels – 4.2kJ is equivalent to approximately 1kcal.

## Maintaining a healthy weight

To maintain a healthy weight, you need to balance the amount of calories you consume through food and drink with the amount of calories you burn through physical activity.

To lose weight in a healthy way, you need to use more energy than you consume by eating a healthy, balanced diet with fewer calories while increasing your physical activity.

## Gaining weight

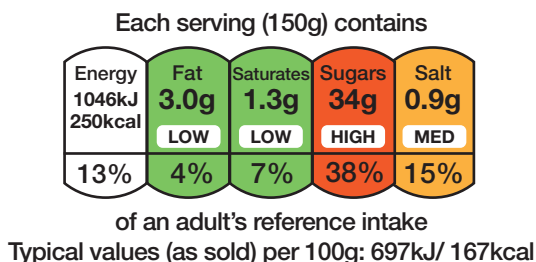
You should always get advice from your GP if you're underweight (your body mass index BMI is less than 18.5).

To gain weight, you need to eat more calories than your body uses each day.



## FOOD LABELLING

If you want to make healthy choices it's important to check food labels. Most products have colour coded nutritional information on the front which tells you at a glance if the food has low, medium, or high amounts of fats, saturated fats, sugars and salt. Choose greens as often as you can.



### Fat and saturates

Fat tells you how much total fat is in the food.  
'Saturates' is another word for saturated fat.

### Sugars

This is how much total sugar is in a food, both natural and added.

### Salt

This is how much salt is in a product.

### Energy

The terms kJ (kilojoules) and kcal (kilocalories) tell you how much energy is in a food product.

### Portion size

This is often written in brackets at the top of the food label. It is the manufacturer's recommendation for one portion of the product. The %RI is worked out based on this portion size.  
This maybe different to what you physically eat.

### Reference Intake (RI)

These are the recommended maximum daily amounts of energy and nutrients you need for a healthy balanced diet. % RI tells you how much of the reference intake the stated portion size provides.

All packaged foods will have a list of the ingredients in the food on the packet.

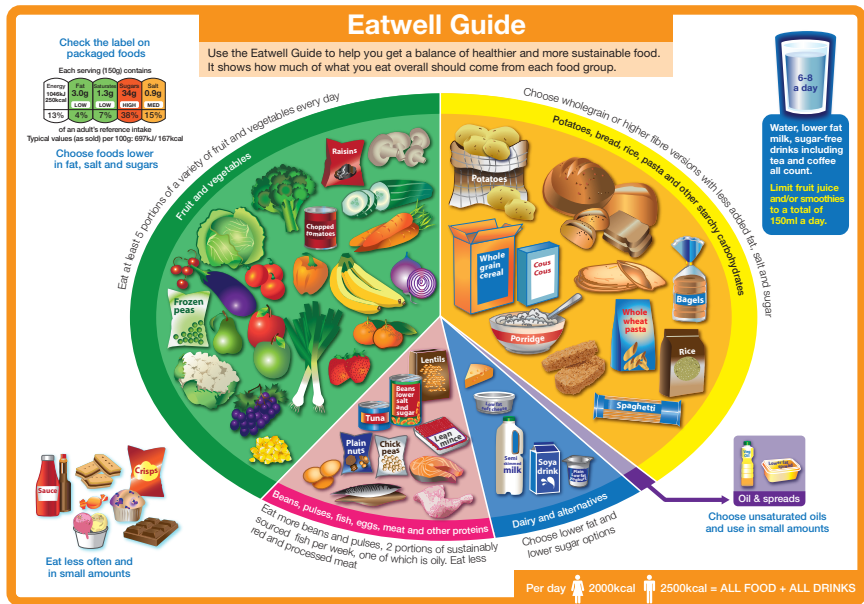
The ingredients list will let you know if there is added salt and sugar in the food you're buying. If an ingredient is high up on the list, it means there's a lot of it in the food. If it's near the bottom of the list, it means there's not much in there.

	FAT	SATURATES	SUGARS	SALTS
<b>LOW</b> Healthier choice	3g or less	1.5g or less	5g or less	0.3g or less
<b>MED</b> OK most of the time	3.1g to 17.5g	1.6g to 5g	5.1g to 22.5g	0.3g to 1.5g
<b>HIGH</b> Just occasionally	More than 17.5g	More than 5g	More than 22.5g	More than 1.5g

All measures per 100g

# EATWELL GUIDE

To make sure you get all the nutrients your body needs, you need more of some foods and less of others. The Eatwell Guide from Public Health England shows us how to get the balance right and is available to download from <https://www.gov.uk/government/publications/the-eatwell-guide>



## Oils, Butter and Margarine

(Around 2% of daily intake)

Choose unsaturated fats like olive oil or rapeseed oil and their spreads, instead of saturated fats like butter. Bake, grill or boil your food rather than frying it. 1 portion = fingertip size

Man = 2 portions per day

Woman = 1 portion per day

## Dairy products

(Around 12% of daily intake)

Look for low fat alternatives and choose unsweetened yoghurts and milks.

1 portion = equivalent of 2 fingers

Man = 3 portions per day

Woman = 3 portions per day

## Rice, Potatoes, Bread & Pasta (Starchy Carbohydrates)

(Around 33% of daily intake)

Look for wholewheat alternatives of these foods where possible which would contain more fibre, vitamins and minerals. 1 portion = palm size

Man = 8 portions per day

Woman = 7 portion per day

## Fruit & Vegetables

(Around 33% of daily intake)

Everyone should aim to have at least 5 portions of a variety of fruit and vegetables each day. Fruit and vegetables should make up around one third of what we eat.

1 portion fruit = palm size

1 portion vegetable = 2 palm size

Source: Public Health England in association with the Welsh Government, Food Standards Scotland and the Food Standards Agency in Northern Ireland

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## FRUIT & VEGETABLE NUTRITIONAL DATA

RED shows v.high content, BLUE shows high content

	5 A Day Serving Weight		Helps maintain a healthy gut	Important in maintenance of vision, skin and the immune system	Important for maintaining healthy body tissues	Helps to maintain healthy blood pressure and nervous system	Imprtant for healthy blood formation
	Weight grams	Calories	Fibre grams	Vitamin A IU	Vitamin C milligrams	Potassium milligrams	Folate milligrams
Apples	138	72	3.3	75	6	148	4
Apricots	70	34	1.4	1348	7	181	6
Artichokes, cooked	120	60	6.5	212	12	425	61
Artichoke hearts, canned	84	42	4.5	149	8	297	43
Asparagus, cooked	75	16	1.5	754	6	168	112
Avocado	35	58	2.4	51	3	175	31
Bananas	118	105	3.1	76	10	422	24
Beets, cooked	85	37	1.7	30	3	259	68
Beet greens, cooked	72	19	2.1	5511	18	654	10
Bell peppers, green	75	15	1.3	276	60	130	8
Bell peppers, red	75	19	1.5	2333	142	157	13
Bell peppers, yellow	75	20	0.7	150	138	159	20
Blackberries, fresh	72	31	3.8	154	15	117	18
Blackberries, frozen	76	48	3.8	86	2	106	26
Blueberries, fresh	73	41	1.7	39	7	56	4
Blueberries, frozen	78	40	2.1	36	2	42	5
Broccoli, raw	44	15	1.1	290	40	139	28
Broccoli, cooked	78	27	2.6	1534	51	229	84
Brussels sprouts, cooked	78	28	2.0	604	48	247	47
Butternut squash, baked	103	41	3.2	11434	16	291	19

	Weight grams	Calories	Fibre grams	Vitamin A IU	Vitamin C milligrams	Potassium milligrams	Folate milligrams
Cabbage, green, raw	89	21	2.0	152	29	219	38
Cabbage, green, cooked	75	16	1.4	105	15	73	15
Cabbage, red, raw	89	28	1.9	993	51	216	16
Cabbage, red, cooked	75	22	1.9	25	8	196	18
Carambola (a.k.a. star fruit)	91	28	2.5	56	31	121	11
Carrots, raw	61	25	1.7	7342	4	195	12
Carrots, cooked	78	27	2.3	13418	3	183	11
Cauliflower, white, raw	50	12	1.2	6	23	152	28
Cauliflower, white, cooked	62	14	1.7	7	28	88	27
Celery, raw	80	11	1.3	359	3	208	29
Cherries	73	46	1.5	46	5	161	3
Cherry tomatoes	75	13	0.9	621	10	177	11
Chile peppers, green, raw	75	30	1.1	884	182	255	17
Chile peppers, red, raw	75	30	1.1	714	108	242	17
Corn, yellow, cooked	82	89	2.3	216	5	204	38
Corn-on-the-cob, yellow, cooked	63	59	1.8	146	3	158	20
Cranberries, raw	48	22	2.2	28	6	40	0
Cranberries, dried, sweetened	30	92	1.7	0	0	12	0
Courgette squash, raw	57	9	0.6	113	10	148	16
Courgette squash, cooked	90	14	1.3	1005	4	228	15
Cucumbers	52	8	0.3	55	2	76	4
Currants, dried	36	102	2.4	26	2	321	4
Dates	42	117	3.3	4	0	272	8

	Weight grams	Calories	Fibre grams	Vitamin A IU	Vitamin C milligrams	Potassium milligrams	Folate milligrams
Eggplant, cooked	50	17	1.2	18	1	61	7
Grapefruit, pink or red	128	41	1.4	1187	44	178	13
Grapefruit, white	118	39	1.3	39	40	175	12
Grapefruit juice, pink or red,unsweetened	185	72	0.3	815	70	300	19
Grapefruit juice, white, unsweetened	185	72	0.2	61	71	300	19
Grapes, green	77	53	0.7	51	8	147	2
Green beans, raw	55	17	1.9	380	9	115	20
Green beans, cooked	63	22	2.0	438	6	91	21
Guava	55	37	3.0	343	126	229	27
Honeydew melon	89	32	0.7	44	16	202	17
Jalepeño peppers, raw	45	14	1.3	360	20	97	21
Kale, cooked	65	18	1.3	8854	27	148	8
Kiwifruit	91	56	3.1	159	68	302	35
Lemons	58	17	1.6	13	31	80	6
Lettuce, iceberg	72	10	0.9	361	2	102	21
Lettuce, green leaf	36	5	0.5	2666	7	70	14
Lettuce, red leaf	28	4	0.3	2098	1	52	10
Lettuce, Romaine	47	8	1.0	2729	11	116	64
Limes	67	20	1.9	34	20	68	5
Mangos	83	54	1.5	631	23	129	12
Mushrooms, raw	35	8	0.4	0	1	110	6
Mustard greens, raw	56	15	1.8	5880	39	198	105
Mustard greens, cooked	70	10	1.4	4426	18	141	51

	Weight grams	Calories	Fibre grams	Vitamin A IU	Vitamin C milligrams	Potassium milligrams	Folate milligrams
Napa cabbage, cooked	55	7	0.8	143	2	47	23
Nectarines	136	60	2.3	452	7	273	7
Olives, black	34	39	1.1	135	0	3	0
Onions, white	80	34	1.1	2	5	115	15
Oranges	131	62	3.1	295	70	237	39
Orange juice, fresh	187	84	0.4	372	93	372	56
Papayas	70	27	1.3	766	43	180	27
Parsnips, cooked	78	55	2.8	0	10	286	45
Peaches	98	38	1.5	319	7	186	4
Pears	166	96	5.1	38	7	198	12
Peas, cooked	80	67	4.4	641	11	217	50
Pineapple, fresh	78	35	1.0	40	13	97	9
Plums	132	61	1.8	455	13	207	7
Pomegranates	154	105	0.9	166	9	399	9
Prune juice	192	136	1.9	6	8	530	0
Raisins	42	123	1.5	0	1	309	2
Raspberries	62	32	4.0	20	16	93	13
Rhubarb, raw	122	26	2.2	124	10	351	9
Shallots	80	58	1.2	952	6	267	27
Spinach, raw	30	7	0.7	2813	8	167	58
Spinach, cooked	90	21	2.2	9433	9	419	131
Strawberries, fresh	83	27	1.7	10	49	127	20
Strawberries, fresh	72	23	1.4	9	42	110	17



	Weight grams	Calories	Fibre grams	Vitamin A IU	Vitamin C milligrams	Potassium milligrams	Folate milligrams
Strawberries, frozen	75	26	1.6	34	31	110	13
Sweet potatoes, raw	67	57	2.0	9434	2	224	7
Sweet potatoes, baked	100	90	3.3	19218	20	475	6
Tangerines	84	45	1.5	572	22	139	13
Tomatoes, red	123	22	1.5	1025	16	292	18
Turnips, cooked	115	25	2.3	0	13	204	10
Watercress	34	4	0.2	1598	15	112	3
Watermelon	77	23	0.3	438	6	86	2

**Beans, Pulses, Eggs, Fish, Meat or other Proteins**

(Around 20% of daily intake)

Choose lean cuts of meat and eat less red and processed meats like ham and bacon.

Good alternatives to meat are beans, peas, lentils as they are lower in fat and high in fibre.

1 portion meat = palm size, 1 portion of Fish/Chicken = 1 hand size

Man = 3 portions per day

Woman = 2 portion per day

**PROTEIN FACTS**

Protein is the building block for any health and fitness regime. It is an essential nutrient and a key component of any healthy diet. It generates amino acids for many physiological functions including the building of muscle and aids the prevention of muscle loss.

Ten effects of protein:

1. Acts as a source of energy when carbs are not available

2. Helps the body burn fat for fuel

3. Preserves muscle tissue during dieting or cutting

4. Builds and maintains hormone levels

5. Keeps pH levels balanced
6. Regulates the balance of food in the body

7. Keeps the body's immune system functioning

8. Boosts metabolism

9. Regulates growth hormone levels

10. Helps lower insulin levels in the blood

**Whey Proteins**

About 20% of the protein in milk is whey. Whey proteins are quickly and easily digested, and they have Essential Amino Acids and other micro-fractions. Whey protein is quickly digested and therefore amino acids are delivered quickly to muscles in order to help start the muscle building process.

**HWPI**

Hydrolyzed Whey Protein Isolate – HWPI is whey protein isolate that has been further broken down into smaller components called peptides that are easier to digest allowing for fast absorption into the bloodstream.

**WPI**

Whey Protein Isolate – WPI is a concentrated whey protein that contains greater than 90% whey protein. Isolate protein contains less fat, cholesterol, and carbohydrates than its concentrate counterpart, so WPI may be a good option for someone watching their fat and carb intake.

## WPC

Whey Protein Concentrate - WPC is a concentrated whey product that contains 40-90% whey protein

## Casein Proteins

About 80% of the protein in milk is casein. Often referred to as a “slower-acting” protein because it is digested and absorbed more slowly than other proteins like whey, casein proteins are especially useful when taken at bedtime or in between meals, so that amino acids can be delivered to muscles for a longer period of time.

## MPI

Milk Protein Isolate – MPI is a concentrated milk product that contains greater than 90% milk protein

## MPC

Milk Protein Concentrate – MPC is a concentrated milk product that contains 40-90% milk protein.

## Egg Proteins

Egg is a complete protein meaning that it contains all of the essential amino acids required by your body for your protein synthesis. Additionally, eggs are dairy-free, a great alternative for those with milk allergies or lactose intolerance.

## Soy Proteins

Soy protein is the only naturally occurring non-animal based source of complete protein. This means that it provides all of your essential amino acids and is vegetarian/vegan friendly.

## Beef Proteins

Beef protein is a complete protein that provides all of your body's essential amino acids. Beef protein supplementation provides an additional protein alternative to consuming dairy as part of your protein supplementation regime.

## Plant Proteins

Plant sources of protein can potentially include rice, pea, hemp, potato, alfalfa, chia, flax (linseed), and more. Plant protein provides an additional alternative source of non-dairy protein supplementation and may include additional beneficial components that naturally occur in the plant.

Note: The isolated versions of Whey and Milk Proteins generally have fewer carbs and fat than their concentrated versions.

# WHEN TO TAKE PROTEIN

It's not just what you take; but when you take it. More specifically, there are times when you should consume different kinds of proteins.

**FIRST THING IN THE MORNING:** The period between when you go to bed and wake up in the morning is the longest that your body goes without food. Opt for a faster-acting protein like whey first thing in the morning.

**PRE-WORKOUT:** By drinking a protein shake about an hour before your workout, you'll ready your body for growth with BCAAs and other essential amino acids. Whey and egg proteins are a good choice, because they are easy to drink and easily digested.

**POST-WORKOUT:** 30-60 minutes following exercise is a critical window of time to consume protein. Enzymes and hormones are actively repairing and rebuilding exercise-induced damage as well as replenishing glycogen, so your muscles are especially receptive to nutrients. By supplying a post-workout recovery protein containing whey, casein, egg, and simple carbohydrates during this time, you'll help ensure that you are recharged and ready for your next session.

**BETWEEN MEALS:** Consuming a protein shake in between meals not only helps support muscle protein synthesis, it may also help with feeling full.

**BEFORE BED:** During the night, the body may go for long periods of time without any food or drink. Casein protein breaks down more slowly which will help feed your muscles while you sleep. Take 30 minutes before bed.

## VITAMINS, MINERALS & SUPPLEMENTS

Vitamins and minerals are essential nutrients your body needs to work properly. The sheer range of nutrients we require is vast, and is best supplied by a healthy, balanced diet. When that's not possible or during periods of particular need, supplements can assist in maintaining health and vitality.

### Colour Coding:

**GREEN** = Excellent. This supplement's intended function is well-supported by a significant amount of scientific evidence.

**BLUE** = Great. This supplement has somewhat inconclusive findings. The evidence is favourable.

**ORANGE** = Good. This supplement has minimal research available to support the ingredients' claims, but is still considered safe for general use and maybe beneficial for individuals who are deficient in the ingredient.



## VITAMINS & SUPPLEMENTS FOR HAIR & SKIN SUPPORT

### CALCIUM

**FUNCTION:** Supports bone health

**COMMON DOSE:** If deficient, aim for the RDA of 1000 mg per day

**TIMING:** Calcium carbonate should be taken at mealtime, either lunch or dinner; calcium citrate can be taken on an empty stomach between meals

### IRON

**FUNCTION:** Aids in immune FUNCTION; improves oxygen-carrying capacity

**COMMON DOSE:** 8 mg for men; 18 mg for women

**TIMING:** Take in the morning with breakfast. Consume with vitamin C to increase absorption. Avoid taking with calcium

### LUTEIN

**FUNCTION:** Antioxidant; supports eye health

**COMMON DOSE:** 6-15 mg

**TIMING:** Not time-dependent

### LYCOPENE

**FUNCTION:** Antioxidant; anticancer agent

**COMMON DOSE:** 5-20 mg per day

**TIMING:** Not time-dependent



## MAGNESIUM

FUNCTION: Improves metabolism; supports bone health; aids in regulation of blood pressure

COMMON DOSE: 280-400 mg per day

TIMING: Take on an empty stomach, preferably without calcium

## QUERCETIN

FUNCTION: Antioxidant; antiatherogenic; anticarcinogenic

COMMON DOSE: 12.5-25 mg per kg of body weight per day

TIMING: Not time-dependent

## VITAMIN A

FUNCTION: Antioxidant; supports eye and cell health

COMMON DOSE: 0.25-0.5 mg per kg of body weight per day

TIMING: Take with a fat-containing meal to increase absorption

## VITAMIN B-12

FUNCTION: Improves energy; supports cardiovascular health

COMMON DOSE: 25-100 mcg per day

TIMING: Take in the morning with breakfast

## VITAMIN C

FUNCTION: Antioxidant; reduces incidence of upper respiratory tract infections; reduces soreness COMMON

DOSE: 400-1000 mg per day

TIMING: Take in the morning with breakfast

## VITAMIN E

FUNCTION: Antioxidant; supports cell health; prevents muscle damage

COMMON DOSE: 400-1200 IU per day

TIMING: Take in the morning with breakfast

## ZINC

FUNCTION: Supports the immune system; antioxidant; assists with digestion and metabolism COMMON

DOSE: 12-15 mg per day

TIMING: Take 1-2 hours before or 2 hours after a meal

## VALERIAN ROOT

FUNCTION: Promotes sleep

COMMON DOSE: 100-1800 mg per day

TIMING: 60 minutes before bedtime

# SUPPLEMENTS INTENDED TO BUILD MUSCLE, INCREASE STRENGTH AND RECOVERY

## ADENOSINE TRIPHOSPHATE (ATP)

FUNCTION: Increases workout volume, muscle strength, and hypertrophy

COMMON DOSE: 225-400 mg per day

TIMING: Divided into equal doses, taken before breakfast and dinner

## ALANINE

FUNCTION: Increases muscle protein synthesis and glycogen resynthesis

COMMON DOSE: 1 g per kg of body weight

TIMING: Take half 20 minutes pre-workout and half throughout workout

## ALPHA-KETOISOCAPROIC ACID (KIC)

FUNCTION: Improves exercise recovery and glycogen resynthesis; insulin mimetic

COMMON DOSE: >0.1 g per kg per day

TIMING: Immediately post-exercise



### ARGININE

FUNCTION: Increases nitric oxide and vasodilation; increases protein synthesis.

COMMON DOSE: 8 g per day

TIMING: Pre- and/or post-exercise

### BETA-ALANINE

FUNCTION: Increases muscle strength and muscle power output

COMMON DOSE: 3.6-6.4 g per day

TIMING: Not time-dependent

### BETA-HYDROXY-BETA-METHYLBUTYRATE (HMB)

FUNCTION: Increases muscle protein synthesis, hypertrophy, strength, and exercise recovery  
COMMON DOSE: 3-6 g per day

TIMING: Immediately post-workout, or take half pre-workout and half post-workout

### BRANCHED-CHAIN AMINO ACIDS (BCAAS)

FUNCTION: Increases exercise capacity, protein synthesis, hypertrophy, and exercise recovery.  
COMMON DOSE: 6-20 grams per day (ideally 2:1:1 ratio of leucine:isoleucine:valine)

TIMING: Take pre-workout and during workout

### CHOLINE

FUNCTION: Improves energy, endurance performance, clarity, and exercise recovery  
COMMON DOSE: 300-1200 mg per day

TIMING: Divided doses between meals or before exercise

### CREATINE

FUNCTION: Increases lean body mass;

Improves body composition

COMMON DOSE: 3-5 g per day

TIMING: Before or after exercise

### GAMMA-MINOBUTYRIC ACID (GABA)

FUNCTION: Increases growth hormone;

improves exercise recovery; promotes restful sleep

COMMON DOSE: 5-10 g per day

TIMING: 60 minutes before bedtime

### GLUTAMINE

FUNCTION: Improves glycogen resynthesis

COMMON DOSE: 8 g per day

TIMING: Immediately post-exercise

### GLYCINE-ARGININE KETOISOCAPROATE (GAKIC)

FUNCTION: Increases in muscular strength; delays muscle fatigue

COMMON DOSE: 11.2 g per day

TIMING: Not time-dependent

### LEUCINE

FUNCTION: Increases protein synthesis and muscle hypertrophy; improves exercise recovery  
COMMON DOSE: 0.5 g per kg of body weight per day

TIMING: Before, during, and/or after exercise



### ORNITHINE-ALPHA-KETOGLUTARATE (OKG)

FUNCTION: Anticatabolic; Increases insulin and growth hormone; improves exercise recovery COMMON

DOSE: 20-30 g per day (~64% ornithine and 36% AKG)

TIMING: Immediately post-exercise

### PHOSPHATIDYLSERINE (PS)

FUNCTION: Anticatabolic

COMMON DOSE: 800 mg per day

TIMING: Post-exercise

### PROTEIN POWDERS

FUNCTION: Enhances recovery and muscle protein synthesis

COMMON DOSE: 20-30 g

TIMING: Post-workout

### ZINC MONOMETHIONINE ASPARTATE (ZMA)

FUNCTION: Improves strength; enhances sleep quality and exercise recovery

COMMON DOSE: Look for ZMA supplements that contain 30 mg of zinc, 450 mg of magnesium, and 10.5 mg of vitamin B-6

TIMING: On an empty stomach before bed

## SUPPLEMENTS INTENDED FOR WEIGHT LOSS, ENERGY AND ENDURANCE

### CAFFEINE

FUNCTION: Increases thermogenesis, lipolysis, and endurance performance

COMMON DOSE: 3-9 mg per kg of body weight

TIMING: 30-40 minutes before exercise

### CHROMIUM

FUNCTION: Improves body composition

COMMON DOSE: 200-400 mcg per day

TIMING: Not time-dependent

### CO-ENZYME Q10 (COQ10)

FUNCTION: Improves exercise recovery, endurance performance, and heart health

COMMON DOSE: 50-300 mg per day

TIMING: Not time-dependent

### COLEUS FORSKOHLII

FUNCTION: Testosterone booster; assists fat loss

COMMON DOSE: 250 mg of 10% forskolin extract

TIMING: Take 250 mg twice daily

### CONJUGATED LINOLEIC ACID (CLA)

FUNCTION: Decreases body fat

COMMON DOSE: 4.2 g per day, divided

TIMING: Divided into equal doses, taken with meals

### CORDYCEPS

FUNCTION: Increases energy; improves endurance performance

COMMON DOSE: 1-3 g per day, divided

TIMING: Divided into equal doses, taken with meals



## SUPPLEMENTS FOR JOINTS, GUT, HEALTHY HEART & IMMUNITY

### 7-KETO-DHEA

FUNCTION: Supports the immune system; increase fat oxidation

COMMON DOSE: 50-400 mg per day, divided

TIMING: Divide into 2 equal doses, take with meals

### BETA-GLUCAN

FUNCTION: Supports the immune system

COMMON DOSE: 250-500 mg per day

TIMING: Not time-dependent

### CHONDROITIN SULFATE

FUNCTION: Alleviates joint pain associated with exercise

COMMON DOSE: 800-1500 mg per day

TIMING: Avoid using with aspirin as it may contribute to bleeding

### COLOSTRUM

FUNCTION: Supports the immune system

COMMON DOSE: 20-60 g per day

TIMING: Shortly after a meal

### ECHINACEA

Supports the immune system; improves endurance performance

COMMON DOSE: 900-1500 mg per day, divided

TIMING: Divide into 3 equal doses, taken throughout the day

### EPA+DHA

FUNCTION: Supports brain and cardiovascular health

COMMON DOSE: 1.5-3.0 g of

EPA+DHA combined per day

TIMING: With food, preferably breakfast

### FLAXSEED

FUNCTION: Provides relief for pain

COMMON DOSE: 30-50 g per day (or 3-5 tbsp per day)

TIMING: Not time-dependent

### GLUCOSAMINE SULFATE

FUNCTION: Alleviates joint pain associated with exercise

COMMON DOSE: 1500-2000 mg per day

TIMING: With a meal and plenty of water

### GREEN TEA

FUNCTION: Antioxidant; increases metabolism

COMMON DOSE: 200-500 mg per day

TIMING: With breakfast



### LINOLEIC ACID (LA)

FUNCTION: Antioxidant

COMMON DOSE: 300-600 mg per day, divided

TIMING: Divide into 3 equal doses, taken with meals

### PROBIOTIC

FUNCTION: Supports healthy digestion

COMMON DOSE: 10 million-10 billion CFUs

TIMING: With food, preferably breakfast

### SAW PALMETTO

FUNCTION: Support for the immune system

COMMON DOSE: 200-350 mg per day

TIMING: Not time-dependent

## SUPPLEMENTS FOR MENTAL FUNCTION, MOOD & SLEEP

### 5-HYDROXYTRYPTOPHAN (5-HTP)

FUNCTION: Increases serotonin; promotes restful sleep; improves exercise recovery

COMMON DOSE: 100-300 mg

TIMING: 30-60 minutes before bedtime

### ALPHA-GPC

FUNCTION: Provides cognitive support

COMMON DOSE: 400-600 mg per day

TIMING: Not time-dependent

### BACOPA MONNIERI

FUNCTION: Enhances memory; reduces stress

COMMON DOSE: 300-450 mg per day

TIMING: Not time-dependent

### DIMETHYLAMINOETHANOL (DMAE)

FUNCTION: Improves mental acuity

COMMON DOSE: 100-1000 mg per day

TIMING: With breakfast

### GINGKO BILOBA

FUNCTION: Supports mental concentration

COMMON DOSE: 160-240 mg per day

TIMING: To support cognitive FUNCTION, take 1-4 hours before needed





### HUPERZINE A

FUNCTION: Improves memory and enhances cognitive FUNCTIONS

COMMON DOSE: 50-200 mcg per day

TIMING: Not time-dependent

### KAVA-KAVA

FUNCTION: Reduces stress

COMMON DOSE: 100-300 mg per day, divided

TIMING: Divide into equal portions to be taken with meals

### L-THEANINE

FUNCTION: Reduces stress; increases mental acuity

COMMON DOSE: 50-200 mg

TIMING: With caffeine to increase mental acuity

### L-TRYPTOPHAN

FUNCTION: Increases production of melatonin; decreases time to fall asleep

COMMON DOSE: 2-5 g per day

TIMING: 60 minutes before bedtime

### MELATONIN

FUNCTION: Sleep aid; promotes uninterrupted sleep

COMMON DOSE: 3-5 mg

TIMING: 60 minutes before bedtime

### PHOSPHATIDYLSERINE

FUNCTION: Improves mood and mental FUNCTION

COMMON DOSE: 200-600 mg per day

TIMING: Not time-dependent

### ST. JOHN'S WORT

FUNCTION: Provides mood support

COMMON DOSE: 300 mg per dose

TIMING: Take 300 mg 3 times evenly spread throughout the day

### TEACRINE®

FUNCTION: Increases energy; improves focus

COMMON DOSE: 200 mg per day

TIMING: 30-60 minutes before workout

### TYROSINE

FUNCTION: Increases mental acuity, energy, and mood

COMMON DOSE: 50-150 mg per kg of body weight

TIMING: 60-90 minutes before exercise

### VALERIAN ROOT

FUNCTION: Promotes sleep

COMMON DOSE: 100-1800 mg per day

TIMING: 60 minutes before bedtime

## This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

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