

# ***Maximum Fitness***

**“The world’s most effective  
20 minute workouts”**

# **Maximum Nutrition For Fat Loss And Muscle Gain**

by  
**Gary Matthews**

*With special Thanks to*

**Matt O’Neill, BSpSc MSc(Nut&Diet) APD**  
**[www.bodyscoop.com.au](http://www.bodyscoop.com.au)**

## Copyright

Copyright 2002 by Gary Matthews. All rights reserved. No part of this book may be reproduced or transmitted in any form, by any means, (electronic, photocopying, recording, or otherwise) without the prior written permission of the author. No liability is assumed with respect to the use of the information contained within. Although every precaution has been taken, the author assumes no liability for errors or omissions. Neither is any liability assumed for damages resulting from the use of the information contained herein.

# Table of Contents

Copyright .....	2
Table of Contents .....	3
Maximum Nutrition for Fat Loss and Muscle Gain .....	4
What is a healthy diet? .....	4
Fat .....	5
Protein .....	5
Carbohydrates .....	6
Super-foods .....	7
Vitamins and Minerals .....	8
Herbals .....	9
Supplements .....	10
Sports Supplements .....	11
Slimming .....	13
The bottom line on supplements .....	13
Weight Loss Gimmicks .....	14
How to make Fat Substitutions .....	15
Reduced fat strategies for specific situations .....	16
About the Author .....	21

## Maximum Nutrition for Fat Loss and Muscle Gain

A good understanding of nutrition and how to use the information provided in this manual will be extremely rewarding for the reader. We can all prevent disease and fight infection utilizing a powerful medicine – Food.

Using nutrition and supplementing your diet is the key to total fat loss and muscle gain. Discover how to stay disease free, feel great, look good and live longer.

The financial cost of diet related disease has been estimated to be worth \$3 billion. This figure includes medical care, medications, lost work productivity and insurance payouts. We can all help to reduce this economic and personal burden through initiatives to improve the national diet.

While there are many factors that contribute to poor eating habits, a lack of knowledge about the foods to include in a healthy diet presents an initial hurdle. Consumer surveys not only reveal an interest in better nutrition, but a high level of confusion. Nutritional myths need to be debunked and misinformation corrected.

## What is a healthy diet?

A healthy diet satisfies two criteria:

- (1) It contains enough fiber and a number of micronutrients including vitamins and minerals to maintain a healthy body.
- (2) It is balanced in forms of fat, protein, and carbohydrates and micronutrients.

## Fat

It is stored in the fat cells of the body. The number of fat cells is estimated to be around 50 billion for the average person. It can be up to 100 billion for the obese person. Fat cells are like storage tanks of energy to be used for later use. It has been shown that obese people who binge eat may stimulate baby fat cells to sprout to increase the number of fat cells.

Fats are found in foods such as, butter, margarine, oils, fats, dripping, nuts and oil seeds.

Other names for fats – Lard, animal shortening, coconut oil, palm oil, vegetable oil, butterfat, whole milk solids, copha, tallow, chocolate chips, shortening, margarine, cocoa butter.

Fats for Women: 30 to 40 grams per day.

Fats for Men: 40 to 50 grams per day.

## Protein

It is a normal part of our diet, a nutrient widely distributed among animal and plant foods, and it plays many essential roles in the body. Dietary protein has two possible fates – it can be either used in growth and repair or burned for energy, like carbohydrate and fat.

Sedentary person : 0.75 grams/kg/day

Recreational athlete : 1.00 grams/kg/day

Serious athlete : 2.00 grams/kg/day

Dietary sources of protein – animal and plant (each serving contains

10grams of protein).

### **Animal**

70g cottage cheese  
40g cheese  
2 medium eggs  
30g beef or chicken  
50g fish  
200ml yogurt  
300 ml milk

### **Plant**

100g whole meal bread  
90g breakfast cereal  
220g baked beans  
150g lentils  
300ml soy milk  
2 cups steamed rice  
50g nuts

## **Carbohydrates**

Carbohydrates supply energy to our body, fiber for prevention against disease, and taste and texture to food. They are found in cereals, potatoes, fruits and vegetables.

Recommended: 4 to 12 grams/kg/day.

Over the last 30 years, research into food and blood glucose response has completely changed our carbohydrate classification system. It has been learned that it is impossible to predict the impact on blood glucose levels by certain foods - instead, people are fed carbohydrate foods and the response measured.

This response is known as the Glycaemic Index (GI), it is a measure of how quickly carbohydrate foods are digested and absorbed, as indicated by elevated blood glucose. The slower the rate of blood glucose increase, the lower the GI.

### **Low GI (<50)**

Grapefruit (26)  
Baked Beans (15)  
Lentils (29)  
Peanuts (13)  
Soy Beans (15)

### **Medium GI (50-70)**

Pineapple (66)  
Raisins (64)  
Sweet corn (59)  
Potato Chips (51)  
All bran (51)

### **High GI (70>)**

Cornflakes (80)  
W/M Bread (72)  
Brown Rice (80)  
Carrots (92)  
Baked Potato (98)

## Super-foods

In the food industry super-foods are called “functional foods”. These foods provide a health benefit beyond the simple provision of nutrients or energy, and usually target a specific disease or condition. In most cases media headlines about the disease-fighting capacity of foods are hyped up versions of current research reality. Below is a summary of what some super-foods can and can’t do for you.

Food	Evidence	Advice
Fish and Fish Oils	Omega-3 fatty acids inhibit blood clots and heart arrhythmias, and reduce blood pressure.	Research with fish oil capsules inconclusive. Eating fish once or twice a week is better than fatty meats.
Red wine and Alcohol	Alcohol elevates the level of HDL “good” cholesterol and inhibits blood clot formation.	No more than one drink for women and two drinks for men per day may be good for the heart.
Oats and Oat bran	Soluble fiber reduces blood Cholesterol level.	Eating enough oat bran to have an effect may be difficult. Include other sources of soluble fiber Eg: nuts, beans.
Garlic	Garlic inhibits blood clots and reduces cholesterol. High intakes have been linked to reductions.	Not worth taking garlic pills, but including more garlic in cooking.
Broccoli	Helps prevent and inhibit cancer growth.	Eat vegetables daily, eg: Broccoli, brussel sprouts, cabbage, cauliflower and turnips.
Soy Foods	Soy reduces cholesterol and a high soy intake may reduce cholesterol by up to 10%	Eating more Soy is a good idea, but you may need to eat 4 servings of soy a day to reduce cholesterol.

Food	Evidence	Advice
Green or Black Tea.	Flavonoids have anti-oxidant activity, but mixed results in observational studies in humans.	Tea can't hurt and might help, unless you can avoid caffeine.
Tomatoes and Tomato products.	The antioxidant Lycopene helps inhibit cancer growth.	A good reason to eat tomatoes, tomato paste and even tomato sauce.
Yogurt	Additional live bacteria may alleviate diarrhea or intestinal disorders.	Eating more of any yogurt is a good idea, the calcium is also a plus.

## Vitamins and Minerals

In general, an adequate intake of vitamins and minerals can be achieved with a balanced diet. However, there may be a strong rationale for supplementation in specific nutrients.

Supplement	Supported Benefit	Reality
Chromium	Increase muscle mass, decrease body fat.	A recent trial with athletes showed no difference in body composition after taking chromium.
Iron	Treat iron deficiency and anemia	Very useful for treating iron-deficiency anemia.
Calcium	Protection	Very useful. Recommended if unable or unwilling to achieve.
Selenium	Cancer Protection	One recent clinical trial suggested the trace metal protected against lung and prostate cancer in people.



Supplement	Supported Benefit	Reality
Beta Carotene	Cancer Protection	Spotlight on beta-carotene as an anti-cancer supplement has dimmed.
B Vitamins	Provide energy, relieves hangovers.	B vitamin deficiency unlikely. Vitamins. Do not provide energy or aid Hangovers.
Vitamin C	Heart and Cancer Protection	Little evidence for cardiac benefits, and conflicting studies regarding anti-cancer potential.
Vitamin E	Heart Protection	Promising but still conflicting studies - vitamin from foods e.g. Nuts and Avocados may be more effective.
Folate	Protect against neural tube defects.	Highly recommended for women who become pregnant.

## Herbals

The latest herbal super-stars include Echinacea, ginkgo, and St John's Wort. They don't pitch themselves as lifesavers, but more as life-maximizers, helping you to get through the day with less disruption from colds, memory failures, blue moods, and more.

Herbal	Supported Benefit	Reality
Echinacea	Anti-colds treatment.	Trials indicate reduction of symptoms and duration of colds, not prevention of colds.
Ginger	Relieves nausea	A number of trials have suggested it may prevent vomiting due to motion sickness.

Herbal	Supported Benefit	Reality
Feverfew	Relieves Migraines	Two small trials in the 1980's suggested it may reduce the frequency and severity of migraine.
Ginko Biloba	Boosts Mental Ability	Several European studies have found some reduction in some symptoms of dementia.
Kava	Reduces Stress	Considerable traditional evidence for a role as a relaxant. Some studies found it helpful for anxiety and mood swings.
Ginseng	Boosts energy enhances sexual stamina	Has improved immune function of lab animals, but human studies have been contradictory.
Saw Palmetto	Treat an enlarged prostate	A recent study has shown the Saw Palmetto was an effective treatment in the condition
St John's Wort	Relieves Depression	May be useful in cases of mild to moderate depression with less side effects than anti-depression drugs.
Tribulus	Boosts male Libido. Nature's Viagra	One study of impotent rams found that Tribulus led to extended periods of sexual activity and improvement in semen production.

## Supplements

To supplement or not to supplement – that is the question on more consumers' lips than ever before. There are various reasons why people

may be interested in supplementation.

- Concern about getting adequate nutrients from our food supply.
- Suspicion of pharmaceuticals.
- Belief that diet alone will not achieve optimal nutrition

Studies suggest that a number of supplements may deliver on advertising claims. However, consumers can spend large sums of money on products that have little or no proven efficacy.

## Sports Supplements

Sports supplements fall into two broad categories, nutritional supplements and ergogenic aids.

Supplement	Contents	Benefit
Sports Bars	High carbohydrate, moderate protein, low fat	Supplemental energy for a training diet. Carbo loading, energy restoration.
Sports drinks	6-8% carbs and electrolytes	Hydration with energy during training and competition
High-Carb Drinks	High Carbohydrate	Carbohydrate loading Glycogen replenishment
Meal Replacements	Moderate carbohydrate, moderate protein, low fat	Supplemental energy and nutrients during training.
Protein Powder	High protein 80% Plus	Concentrated form of protein to supplement dietary sources. Convenient for busy athletes.

Supplement	Contents	Benefit
Colostrum	Immune and growth factors	One well publicized trial in Australia found improvements in functional performance.
Medium chain Triglycerides	Fatty Acids	Only one study has shown endurance benefits.
Bicarbonate	Alkalai solution	Buffers extra cellular acid build-up during events for 1-7 minutes can have a positive effect on performance.
Creatine		Most beneficial for repeated power events – improved recovery. Loading dose is 20 – 30 g/ day for 7 days, then 2-3 g per day maintenance.
Glutamine	An amino acid	May assist immune function in athletes experiencing over training. Athletes taking glutamine report fewer infections.
HMB	A bioactive Metabolite from Leucine breakdown	May decrease protein loss during stress by inhibiting protein catabolism.
Melatonin	Aids sleep and prevents jet lag	May hasten onset of sleep when taken 30 mins to 2 hours before bedtime.
DHEA	Slows ageing, boosts energy	A hormone not a supplement, studies have shown mixed results
Ephedra	Boosts energy and controls weight	Warning: has been linked to high blood pressure, headaches and seizures.
Glucosamine	Relieves arthritis	Small clinical trials have shown relief of pain and tenderness and improvement in mobility.

## The bottom line on supplements

- Before taking a supplement try to make modifications to your diet that might achieve your goals.
- Only choose products that show the amount of active ingredients on the label.
- Be aware that “natural” does not mean ‘safe’
- Some herbal supplements may have unpleasant side effects.
- Don’t treat serious medical conditions yourself. Discuss supplement use with your doctor.
- If you are pregnant or are breast-feeding consult a doctor before taking supplements.

## Slimming

Supplement	Ingredients	Benefit
Fat Blockers	Products containing Chitosan, made from powdered shells of crustaceans. Are also known as fat magnets.	Rat studies have shown increased Faecal fat content and lowered blood cholesterol levels.
Metabolic Boosters	Carnitine, ginseng DHEA	Very little support for hyped claims DHEA is likely to have some effect. But with side effects.
Hunger Busters	Cuar gum, Hydroxycitric acid	Fiber in a drink supplement can suppress appetite, but may have the same effect. HCA – only rat studies. Chromium – human studies Dispute claims.

## Weight Loss Gimmicks

- Rolling machines – operated by an electric motor, they roll up and down the selected body part. They do not remove or redistribute fat.
- Massages – provide passive exercise with no effort. They can help increase circulation, but have no value in removing fatty tissue.
- Muscle Stimulators – when applied to a muscle, cause the muscle to contract involuntarily. When used by doctors or physiotherapists, muscle stimulators are a valuable therapeutic device. Non-professionals should not use them.
- Body Wraps – in combination with a cream or herbal solution are purported to reduce girth. The pressure may result in temporary shrinkage, but the idea that fat is affected is pure quackery.
- Thermal Pads – may cause fluid loss, and thus weight loss. But they do not “break up fatty deposits” and may result in severe dehydration.
- Inflatable suits – constrict a localized area, causing sweating and nothing else.
- Toning tables – are very popular in slimming salons. The machine does any movement and claims of spot reduction are ridiculous.
- Creams – will have an effect of smoothing the skin, reducing the appearance of cellulite, but in no way will they actually cause any physiological change to reduce fat.

## How to make Fat Substitutions

### Current Food:

### Change to:

Cheese – High fat types; Cheddar and other hard cheeses.

Lower fat varieties e.g. Edam, Cottage, Mozzarella, Ricotta, Gouda.

Chips/French fries

Thick cut 'wedges' or oven baked chips

Chocolate

Eat in moderation, buy the best quality. Substitute jelly babies or other sugar treat.

Cream

Reduced fat cream, use low-fat yogurt or evaporated skim milk.

Creamed Soups

Check label for fat, use clear soups.

Croissants, pastries

Bagels, bread rolls, finger buns.

Custard

Low fat custard

Doughnuts

Crumpets, plain scones, raisin loaf.

Ice Cream

Reduced fat Varieties.

Meat (beef, lamb, pork)

Lean beef, trim lamb, new pork or other 90%. Fat free cuts/mince.

Muesli Bars

Check label for fat, buy breakfast bars, Power bars.

Pies

Reduced fat pies, use filo pastry

Potato Crisps

Parkers Pretzels

Salad dressings – Mayonnaise, French

Use vinegar or lemon juice

Savoury biscuits

Vita wheats, crispbread

Sweet biscuits

Plain biscuits e.g. arrowroot, wheatmeal.

TV meals

Lower fat varieties (check label for fat).

## Reduced fat strategies for specific situations

There are many ways to achieving a reduced fat diet. You will be surprised how easy it is.

### Breakfast

- If you like butter or margarine on toast, only have it on the last slice you eat.
- If you don't feel like a solid breakfast, have a fruit smoothie.
- Mix up your own cereal from two or three types and give your creation a name.

### Lunch

- If you eat lunch away from home, plan it the night before. Make sandwiches before you go to bed.
- Try thick vegetable soup with a fresh bread roll to dip.
- Invest in a cool bag to keep your lunch fresh.

### Dinner

- Try oven-baked potato wedges with a salsa topping.
- Go for fresh pasta with a quick tomato and basil sauce.
- For dessert, have a piece of fresh fruit with a yogurt topping.

### Snacks

- Salsa dip with pretzels
- Plain fruit loaf
- Yogurt
- Vanilla dairy custard.

### Before a workout

- Small glass of fruit juice
- Banana and Custard
- Half a slice of toast with jam.



## After a workout

- Fruit/canned fruit
- Wheat Bites
- Rice cakes with honey.

## At Work

- On your desk – bottle of water or glass to use at the water dispenser.
- In your desk – piece of fruit, small pull-top can of baked beans/creamed corn/stewed fruit.
- Bring a few ingredients from home to be combined at work.
- Keep some cutlery where you work.

## On a Plane

- Order a special meal when you book your ticket. You'll usually get served first!!
- Ask for an extra roll.

## At the Hotel

- Take our own favorite cereal and reduced fat milk.
- Ask that the foods be removed from the snack bar. Eat your own low-fat nibbles.

## Getting tough with take-aways

Burger Bar – Plain grilled burger, skim milk milkshake.

Pizza Parlour – Gourmet pizza with lots of vegies, go easy on the cheese.

Kebab House – A little meat with a lot of salad.

Sandwich Bar – Salad sandwiches/Rolls.

Club – A little meat, heaps of mashed/jacked potato and vegies, pasta/rice.

Indian – Lots of boiled rice, tikka, plain naan, dahl soup, raita.

Chinese – Lots of boiled rice, chop suey, steamed dishes, plain noodles.

Italian – Tomato-based dishes, plain bread.

## Cutting Up

- Reduce both obvious and hidden fats.
- Record food intake to identify problem areas.
- Be aware of times when you over eat.
- Avoid severe food restriction.
- Monitor body fat levels, not weight.
- Aim for moderate fat loss (0.5-1kg/week) and enter 'cutting-up' phase with this plan.
- If competing, avoid salt in the final week to prevent fluid retention.
- Understand the nutritional limitations on performance.

## Bulking Up

- More carbohydrate eating sessions, rather than bigger meals.
- If protein requirement is large, split intake up over the day.
- High energy drinks – fruit smoothies.
- Decrease food bulk by choosing lower-fibre carbohydrate foods.
- Keep food on hand at all times.
- Record food intake to identify problem areas.
- Consider appropriate energy supplements.

Since strength – training greatly increases the rate at which protein is broken down in the body, it follows that 0.75gms per kilogram is inadequate. On the other hand to increase the intake of protein to say, 3.0gm per kilograms straight away would trigger mechanisms to eliminate the excess protein. One way to overcome this is to increase the protein in

steps until a maximum efficiency point is reached and then it is drastically reduced. This obliges the body to compensate by increasing the efficiency for the absorption of protein and amino acids. An example of a protein loading weight-gaining diet for strength training is the following:

### **Week One**

Breakfast: Poached egg on toast, cereal with fruit and milk.

Snack: Fruit and protein shake.

Lunch: Chicken, potato, and vegetables. Fresh fruit salad.

Snack: Nuts, fruit, and biscuits with cheese.

Dinner: Fish any style, rice, vegetables, whole meal bread and fruit salad.

### **Week Two**

Breakfast: Two poached eggs on toast, cereal with fruit salad and milk.

Snack: Nuts, fruit, protein shake.

Lunch: Chicken with potatoes and vegetables (any style)

Snack: Nuts, fruit, biscuits with cheese.

Dinner: Roast Beef with vegetables, brown rice, whole meal bread.

### **Week Three**

Breakfast: Three eggs any style on toast, cereal with fruit and milk.

Snack: Nuts, fruit, and protein shake.

Lunch: Turkey with potatoes and vegetables, brown rice, whole meal bread.

Snack: Nuts, fruit, protein shake.

Dinner: ½ Chicken, potatoes, veggies, brown rice, whole meal bread.

Before Bed: Protein shake.

## Week Four

Breakfast: Four eggs any style on toast, cereal with fruit and milk.

Snack: Nuts, fruit, protein shake.

Lunch: Spaghetti with meat sauce, potatoes, brown rice, whole meal bread.

Snack: Nuts, fruit, protein shake.

Dinner: Roast Pork, potatoes, brown rice, whole meal bread.

Before Bed: Protein shake.

After week four of your protein loading your daily intake of protein should be about 3 grams per kg bodyweight. It is now time to move from the max intake of protein to the lowest. So in the fifth week go back to week one menu, in the sixth week, week two menu and so on. The above diet provides a balance of protein, fats and carbohydrates and with strength training will be very effective in increasing muscular bodyweight.

## About the Author

Gary Matthews  
Fully Qualified Fitness Instructor



“Over Twenty Years Experience”

As the official online trainer, Gary Matthews brings over 20 years of experience in the Health and Fitness Industry to MaximumFitness.com

Gary’s professional career began in the Royal Australian Air Force where he was employed as a Fitness Instructor. His duties consisted of training recruits in various disciplines including strength training and conditioning techniques. He was soon posted to Penang, Malaysia where he was primarily responsible for creating and maintaining a commercial gymnasium used by service personal and civilians alike. During this time, Gary is also fluent in the Malaysian language, and was an essential player in re-leasing negotiations with the Malaysian and Australian governments.

Gary continued to utilize these skills when he returned to Australia and began his tenure with the ANA and Sheraton hotel chains where he lead a cultural staff exchange between the ANA hotel Gold Coast and Manza Beach Resort in Okinawa, Japan. Gary used his expertise to develop their leisure and sports club and also gained fluency in the Japanese language.

Gary has continued to build upon his gym instruction and personal training experience throughout his entire career. By developing client routines and noting their frustrations with time intensive training regimes, it became apparent that the more people train, the slower their respond

to the training. Gary steered away from volume training and developed a fitness technique that requires people to be in the gym for only 20 minutes a week. When Gary introduced this element into his clients' fitness routines, they began to make rapid progress while increasing functional muscle and dramatically decreased body fat levels. When Gary further combined this technique with a more nutritional diet, total transformations were achieved in as few as ten weeks.

Gary currently directs a very successful personal training business on the Gold Coast of Australia and promotes abbreviated training as the preferred fitness method. He also continues to run a fitness consultancy for off and on-line businesses.