



# Meeting your Protein Needs

Eat Your Way to Better Health

# Meating Your Protein Needs

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## The Aims for This Seminar

- ▶ The role of protein in the diet
- ▶ Is too much protein healthy?
- ▶ Animal V Plant Protein
- ▶ Special Amino Acids
- ▶ Digestive Wellness: Dysbiosis and Putrefaction



# The Role of Protein

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- ▶ We need protein in the form of amino acids to make:
- ▶ Hair, nails, skin, muscle, organ tissue and other body structures.
- ▶ Protein is also vital for making hormones, specific parts of our cells and enzymes that are required to help us function efficiently.

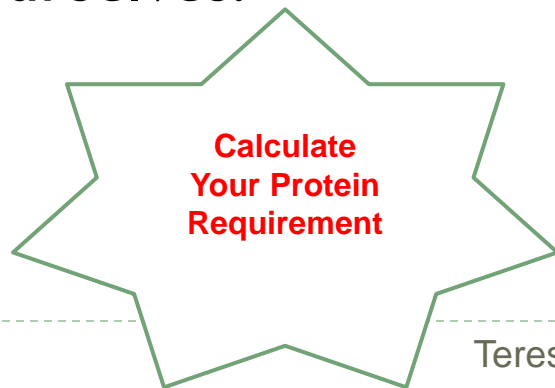


The word protein comes from the Greek *Proteios* or 'primary'

# How much do we need?

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- ▶ Tissue in our body is constantly being broken down, and new protein is needed on a constant basis to form new tissue.
- ▶ This new protein allows us to heal, grow, remodel and internally defend ourselves.
- ▶ The average British person easily reaches and often exceeds protein requirement without focusing on a high-protein diet.
- ▶ Extra Protein is required when:
  - ▶ We are growing
  - ▶ Pregnancy & Lactation
  - ▶ Doing Intense exercise



# Protein Quality

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- ▶ A complete protein source is one that contains all of the amino acids (building blocks) in the correct amounts.
- ▶ Animal protein, such as meat, fish, poultry, dairy, are examples of complete proteins.
- ▶ Plant foods including pulses and grains are low in some of the essential building blocks.
- ▶ However, these become complete when they are combined- mix a grain with a pulse and you will have a complete protein.

The key is having a varied diet of grains, pulses, vegetables and fruits with moderate amounts of animal protein. Whey powder and eggs are the highest quality of protein foods.

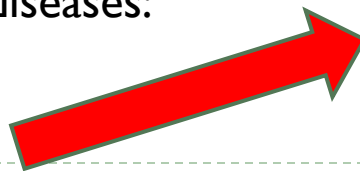
# Animal v Plant?

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- ▶ In the UK approximately 62% of protein intake comes from animal products:
- ▶ 36% Meat
- ▶ 7% Fish
- ▶ 16% Dairy
- ▶ 3% Eggs
- ▶ 23% Cereals
- ▶ 4% Potatoes and savoury snacks
- ▶ 5% from vegetables and pulses
- ▶ There is much evidence that shows that a high intake of animal protein is linked to the development of a number of degenerative diseases:



Heart Disease  
Many Cancers  
High Blood Pressure  
Kidney Disease & Kidney  
Stones  
Osteoporosis- the increase of  
protein from 47grams to 142  
grams per day doubles the  
excretion of calcium in urine!



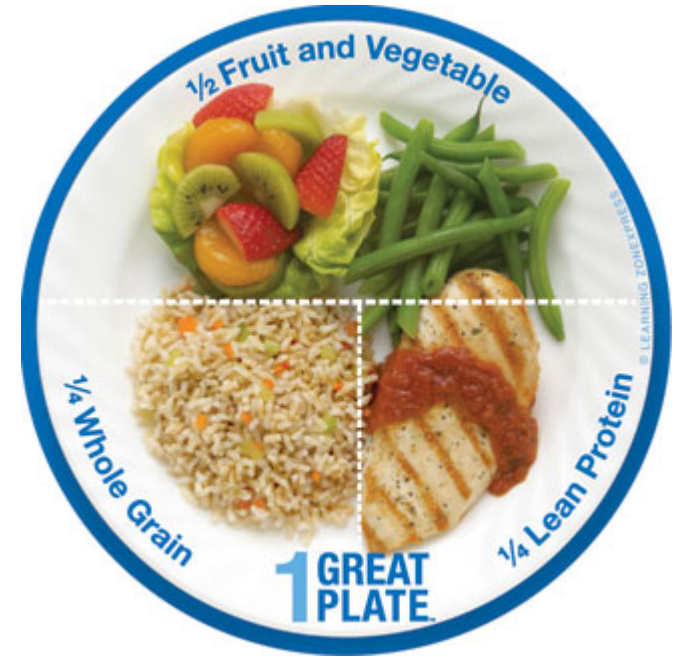
# Is a high protein diet healthy?

- ▶ Your liver and kidneys
- ▶ Energy used in the wrong place!
- ▶ Acid v alkaline
- ▶ The good bacteria of the colon

Portion Control. 1 Portion =

Cheese and Dairy: The portion is no bigger than a matchbox

Meat and Fish: Size of a pack of playing cards



# Milk

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- ▶ Milk does provide a good source of calcium and protein.
- ▶ However the protein in milk can cause an acid environment in our blood that requires calcium & magnesium -from our bones- to correct the high acidic levels.
- ▶ Milk can contribute to an increased inflammatory response
- ▶ For some adults the sugars (lactose) are challenging to break down, and can cause digestive problems such as:
  - ▶ Bloating
  - ▶ Gas
  - ▶ Diarrhoea
  - ▶ Nausea
- ▶ Abdominal pain





# Dysbiosis & Putrefaction

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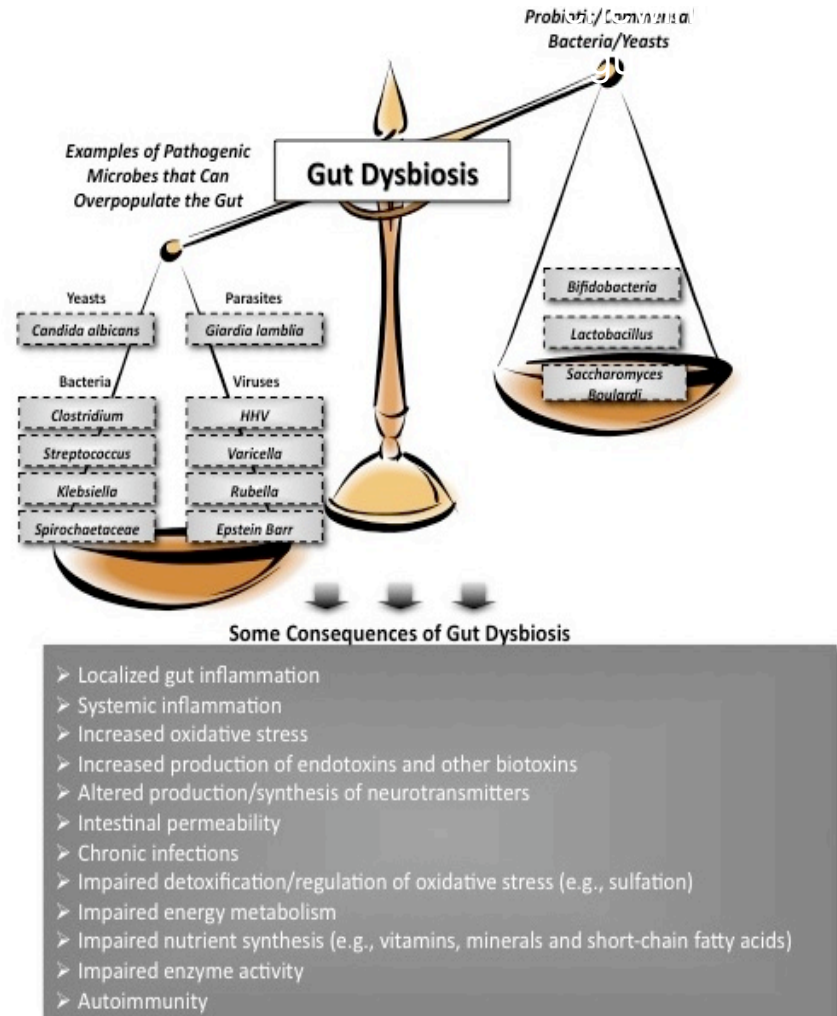
- ▶ **Dysbiosis:** as a state of imbalance of the intestinal flora (bacteria and other micro-organisms)
- ▶ Leading to excessive bacterial fermentation in the gut & 'autointoxication' from endotoxins (toxins produced by undesirable bacteria within the body).

Over 500 different strains of bacteria inhabit the GIT



# Gut Dysbiosis

- ▶ In a healthy digestive tract, there is a ratio of approximately 80% good/neutral to 20% harmful bacteria.
- ▶ In the 1980's research found that bacterial toxins from an increase in the harmful bacteria can injure intestinal cells and also appear to destroy enzymes on the intestinal cell surface
- ▶ Negatively effecting digestion and making undigested foods available for bacterial fermentation.



# Putrefaction Dysbiosis

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- ▶ Putrefaction dysbiosis results from high fat and animal protein along with low fibre.
- ▶ This type of diet produces and increased concentration of Bacteroides and decreased concentration of the Bifidobacteria species.
- ▶ Bacteroides can cause vitamin B<sub>12</sub> deficiency by uncoupling B<sub>12</sub> from intrinsic factor, necessary for B<sub>12</sub> absorption. Bacterial production of B vitamins also becomes compromised.

Symptoms of B<sub>12</sub> Deficiency:  
Depression, diarrhoea, fatigue,  
memory loss, sleep  
disturbances weakness



# Some of The Special Amino Acids

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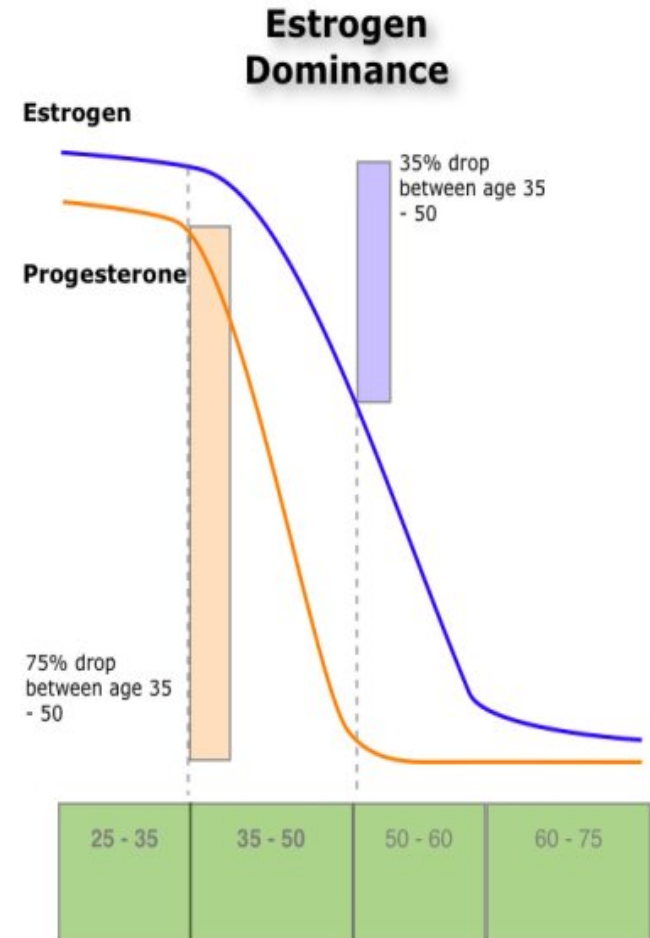
- ▶ **Tyrosine** (eggs, chick peas, fish, lentils, turkey, bananas, avocado) – dopamine, adrenalin, noradrenalin and thyroxin.
- ▶ **Arganine** (chocolate, nuts & seeds) improve blood flow and reduce CVD.
- ▶ **Glutamine** (eggs and animal protein) improves immune function
- ▶ **Lysine** (most veg, pulses, fish, turkey)- antiviral for fighting herpes.



**Tryptophan** (chicken, tofu, eggs, soya, almonds) serotonin and melatonin)

# Oestrogen Dominance

- ▶ Research has implicated putrefaction dysbiosis with breast and colon cancer.
- ▶ When there is dysbiosis there is an increase in bile and also an increase in the enzymes that breakdown bile in the colon.
- ▶ An example is betaglucuronidase, which are able to recreate oestrogen that has been detoxified by the liver,.
- ▶ Allowing the oestrogen to be re-absorbed back into the blood stream, increasing oestrogen levels and potentially causing oestrogen dominance.



# Summary- what have you learnt?

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- ▶ The role of protein in the diet
- ▶ The importance of balancing protein intake
- ▶ Animal V Plant Protein
- ▶ The health risks of a high protein diet
- ▶ Special Amino Acids
- ▶ Digestive Wellness: Dysbiosis, Putrefaction & Oestrogen Dominance

Thank you for listening