**Fats And Proteins Review – KEY**

1. **9.3 Kcal/g = 9.3 Cal/gram**
2. **Vitamins A, D, E and K. (ADEK, DEAK)**
3. **Type of Fat Source Good/Bad**

**Monounsaturated Vegetables very GOOD**

 **Plant oils**

**Saturated Fats Animals BAD**

 **A few plants**

**Essential Fish Oils GOOD**

**Fatty Acids Some seed**

**(ex Omega 3) oils (flax)**

**Polyunsaturated Vegetables Very GOOD**

 **Plants, Corn**

 **Soy, Fish**

1. **10% or less**
2. **Some of the double bonds are broken apart and the fatty acid straightens out to become more saturated.**



1. **Melting point goes up.**
2. **30%**
3. **Cis vs Trans:**



1. **Melting point also goes up, to give a more solid texture.**
2. **HDL = High density lipoprotein – Good Cholesterol. Mops up loose blood cholesterol and takes it back to liver to excrete it.**

**LDL = Low density lipoprotein – Bad. Leaks cholesterol into the blood stream and forms cholesterol deposits called plaques.**



**PROTEINS:**

1. **4.1 Kcal/gram = 4.1 Cal/gram**
2. **Amino Acids.**



1. **There are 22 – most textbooks will state the standard - 20.**
2. **A) Essential Amino Acids**

**B) Non-essential Amino Acids**

**15. 10-15%**

**16. Cellular Metabolism switches to burn proteins.**

**17.**

**A) Dehydration**

* **B) Ketosis – Overproduction of Ketones (**Headache, Dizziness, Weakness, Fatigue, Constipation, Halitosis, Foul Smelling Urine)

**C) Calcium loss 🡪 Osteoporosis.**

**D) Inadequate fuel for muscle work and repair.**

**E) Gout – Build up of uric acid crystals.**

**18. Yes, by combining incomplete protein foods.**

**19. Complete Protein.**