## 3.2

## **LIPIDS**

In the Arctic region of the northern hemisphere is a group of people that make up the Inuit culture. The Inuit people have tragically adopted much of the standard American diet (S.A.D.) that we indulge in (fast food, sugary drinks, processed meals, etc.). As a result, the incidence of diabetes and cardiovascular disease is rising dramatically. Inuit natives who adhere to the traditional diet of marine mammals and fish, with some berries and greens, are not demonstrating the startling trend of metabolic disease.

Some call this the Inuit Paradox. The paradox refers to the fact that traditional Inuit diets consist of large amounts of fat. Whale fat, seal fat, caribou fat, and other small animal fat is regularly consumed as a staple. In fact, the daily fat consumption is nearly two times the recommended daily allowance published by the health and nutrition experts in our government. So, why can the Inuit people exist on double the recommended dose of fat intake and actually decrease their incidence of cardiovascular disease and diabetes? This would seem to be a paradox.

There must be more to the unhealthy American diet than the amount of fat consumed. It appears that the type of fat consumed is at least as important as the quantity. Have you heard people talk about saturated and unsaturated fat or vegetable oil and animal fat? Have you heard anything about omega 3 oils and omega 6 oils? What about trans fats and cholesterol? It seems that not all fats and oils are the same. Perhaps the types, mixtures, and ratios of fats and oils found in the traditional Inuit diet can help explain the health benefits enjoyed by traditional Inuit natives.

Science is taking a closer look at other traditional diets as well. Have you heard the hype about the heart protective effects of the Mediterranean diet? Some feel that the types of oils and fats found in this part of the world may have heart protective effects. You will likely hear and read more on the topics of fats and oils in years to come. In order for you to be a literate consumer of this information, it will be important that you know your fats. This section will teach about the different types of lipids.

## The Nature of Lipids

As lipids include a vast array of naturally occurring organic molecules. Lipids can be categorized as fats, oils, waxes, cholesterol, cell membranes, some pigments, some vitamins, and many other important compounds. Among the many types of lipids, the terms "fat" and "oil" are probably the most familiar. Fats are generally solid at room temperature while oils are liquids. Here we will examine 3 primary classes of lipids: triglycerides, phospholipids, and steroid lipids.

Triglycerides	
Phospholipids	
Steroids	
Lipoproteins	



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