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*When a man makes a fool of himself, men say: "What a fool he is."  
When a woman makes a fool of herself, men say: "What fools women are."  
-- Coco Chanel*

### Oolachan

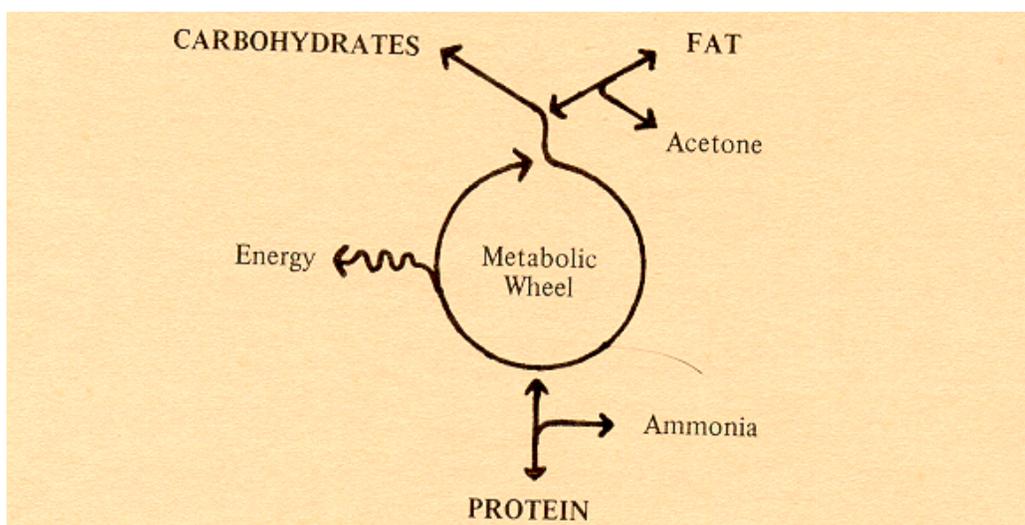
For lunch it might go well with black bear and salmon berries. Provided of course, that you were getting adequate seal fat or whale blubber as a supplement. Oolachan (oo-la-con), or candle fish is a part of the diet of native Alaskans. It is a small fish available by the millions in season. It is a type of smelt that is so oily that when dried and equipped with a wick, it can serve as a candle.

The fatty character of this fish fits the general pattern of the Eskimo diet: high fat. The fat serves several purposes for men and the animals they get it from. It is an insulator slowing the flow of heat from the body. It is a high energy source for heat and work and it has lubricating properties.

However, even if we were willing, most of us could not live on the Eskimo diet. Our metabolism cannot accommodate the huge amount of fats to which the Eskimo has adapted. We would develop the disease, *ketosis*, and our breath would smell like acetone (paint remover).

### The Wheel of Life

All of the major nutrients are interchangeable to a certain extent. Protein can be converted to fat or carbohydrates, and vice versa. Metabolically, it works something like this:



We need carbohydrates to keep the wheel turning and without them, the fat will be sidetracked into acetone, causing *ketosis*. Well balanced metabolism usually requires substantial amounts of carbohydrates and lesser amounts of protein and fat. The Eskimo is apparently able to get along with a much lower level of carbohydrates than the rest of us.

### **Saturation vs. Polyunsaturation**

The Oolachan is unusual also in the composition of its fat. A rule of thumb says that all vegetable oils are polyunsaturated (except coconut oil) and that all animal fats are saturated (except fish oil). The Oolachan is an exception to the exception. Its oil contains only 3.5% polyunsaturated fatty acids and thus it is largely saturated. Evidence suggests that this has never been a burning issue with the Eskimo.

### **Primitive Rendering**

The fish when eaten or used as candles require minimal processing, but the pure oil is highly prized and getting it out of the fish requires some ingenuity. The method of choice with the Indians of British Columbia was:

1. Allow the fish to lie about and rot for a few days
2. Fill an empty canoe with rotting fish
3. Cover the fish with water
4. Build a large fire and heat many rocks (very hot)
5. Add the rocks to the canoe till the water boils
6. Ladle off the oil as it rises to the surface

This process yielded a good quantity of fine oil. The oil could then be used for burning or better yet for flavoring a variety of dishes.

### **Oil and Flavor**

Pure fats and oils don't have much flavor themselves, but they do make a tremendous impact on flavor. A large number of taste and aroma materials that attract us to food do not dissolve well in water and therefore, are found in the oily part of the food. Besides lubricating the food and giving it a nice feel in the mouth, the oil then serves as a reservoir of flavor. This accounts for consumers preference for regular over lean ground beef. The Indians might not have known all this, but they did know that Oolachan oil did great things for food.

### **Cost / Benefit Analysis**

Dietary fat has some definite bad points: it provides a lot of energy (calories) that many folks don't need, it doesn't dissolve well in body fluids which are mostly water and it can place an unnecessary burden on the circulatory system.

However, it also provides benefits: fat is an **essential** component of cell membranes, provides a reservoir of concentrated energy and is usually found in foods that are rich in other nutrients. (Oolachan is a good source of protein, Vitamin A, riboflavin and calcium, for example.)

The outstanding flavor contribution tips the balance in favor of a moderate intake of fat: a place for everything and everything in its place.