

Nutrition expert Dr. Loren Cordain shows how to eat like a caveman for optimal health and athletic performance

When Loren Cordain was growing up, his father gave him books about how our Stone Age ancestors lived off the land, while his mother encouraged him to eat fruits and vegetables. Those early influences, plus Cordain's later desire to eat well to improve his athletic endeavors, inspired him to become one of the world's foremost experts on Paleolithic nutrition. His research now provides us insight into the best, and easiest, way for athletes to eat to achieve physical superiority.

The term *Paleolithic* comes from the combination of the words *paleo* (old) and *lithic* (stone). When we speak of Paleolithic people, we are talking about the earliest known Homo sapiens—in other words, our Stone Age ancestors. With only ingenuity and their simple handmade tools to assist them, Paleolithic people were restricted to a hunter-gatherer diet consisting primarily of animals and wild plants.

One of the most important research papers concerning the eating habits of our earliest ancestors was published in 1985 in *The New England Journal of Medicine*. This paper, written by Dr. Boyd Eaton and Melvin Konner, was entitled "Paleolithic Nutrition: A Consideration of Its Nature and Current Implications."

In 1987 Cordain, who by this time had earned a doctorate in physical education from the University of Utah and was a professor at Colorado State University, read the article and was inspired to learn everything he could about this subject. Several years later Cordain eventually teamed up with Dr. Eaton to work on several research projects about Paleolithic nutrition. In 2002 Cordain wrote *The Paleo Diet* (John Wiley & Sons, Inc.), a book that describes the diet in lay terms for the general population.

"The Paleo Diet consists of the types of foods every single person on the planet ate prior to the Agricultural Revolution," says Cordain. "These foods—fresh fruits, vegetables, lean meats and seafood—are high in the beneficial nutrients that promote good health and are low in the foods and nutrients that can contribute to weight gain, cardiovascular disease, diabetes and numerous other health problems."

Cordain has devoted almost two decades to studying Paleolithic nutrition in depth; in his book he offers the following overview of the eating habits of our caveman ancestors:

Paleolithic people ate no dairy food as adults. Imagine how difficult it would be to milk a wild animal, even if you could somehow manage to catch one.

Paleolithic people hardly ever ate cereal grains. This sounds shocking to us today, but for most ancient people, grains were considered starvation food at best.

Paleolithic people didn't salt their food.

The only concentrated sugar food Paleolithic people ate was honey, when they were lucky enough to find it.

Wild, lean animal foods predominated in Paleolithic diets, so protein intake was quite high by modern standards, while carbohydrate consumption was much lower.

Virtually all of the carbohydrates Paleolithic people ate came from nonstarchy wild fruits and vegetables. Consequently, their carbohydrate intake was much lower and their fiber intake much higher than is available from the typical modern diet.

The primary fats in the Paleolithic diets were healthful monounsaturated, polyunsaturated and omega 3 fats-not the saturated fats and trans-fats that predominate in modern diets.

Genes Never Go Out of Style

Cordain believes the Paleo Diet is the type of diet that humans are genetically adapted to and that human genetics hasn't changed that much since the Paleolithic period. "Since the Agricultural Revolution of 10,000 years ago there have been only 500 human generations. Our genome simply has had insufficient time to adapt to such foods as the fatty meats, dairy products, whole grains and salty foods that were ush-



ered in during the Neolithic [4500 BC] period." In other words, all but a fraction of a percentage of our genetic heritage was formed before the development of agriculture.

Although most of our Stone Age ancestors had a shorter life span than we now enjoy, Cordain maintains that nutrition was not to blame. "Most deaths in

> hunter-gatherer societies were related to the accidents and trauma of lives spent outdoors without modern medical care, as opposed to the chronic degenerative diseases that afflict modern societies."

Research on the Paleolithic period shows that when humans started domesticating plants, raising crops, the levels of vitamins, minerals and amino acids declined within the human body. "On a calorie-by-calorie basis, whole grains are poor sources of fiber, minerals and B vitamins when compared to the lean meats, seafood, fresh fruits

and vegetables that are predominant in the Paleo Diet. A 1,000-calorie serving of whole-grain cereal contains 15 times less calcium, 3 times less magnesium, 12 times less potassium, 6 times less iron and 2 times less copper than a comparable serving of fresh vegetables."

Of particular interest to women and the elderly, groups that are especially susceptible to serious degenerative bone disorders such as osteoporosis, is the fact that whole grains contain phytate. Phytate, Cordain explains, is a substance that interferes with the body's ability to absorb the calcium, iron and zinc that are found in whole grains. Further, Cordain



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Dan John, (left) who was featured in our Winter 2003 issue, lost 50 pounds of fat on a Paleolithic diet. Strength Coach Charles Poliquin put Doug Weight of the St. Louis Blues (right) on the diet. As shown by the photos, in just 6 weeks the NHL star decreased his bodyfat by 4.32 percent while adding 11.5 pounds of muscle.

says that whole grains, and also dairy products, produce high levels of acid that cause the body to excrete through the urine much of the calcium consumed in the diet. "For these reasons, an agriculturebased diet can lead to an increased incidence of bone mineral disorders."

Because fats make up a large percentage of the Paleo Diet due to the emphasis on meat, there is a concern that such a diet could promote heart disease and high blood cholesterol. Cordain says there is no reason to worry. "The types of meats permitted on the Paleo Diet are lean meats trimmed of visible fat. These meats are healthful because they have nutritional

characteristics similar to wild animals." There's more good news for

meat lovers: Cordain says that recent clinical studies have shown that diets that emphasize lean protein are more effective than low-fat, high-carbohydrate diets in improving blood cholesterol and other blood lipid levels. "High protein diets have also been shown to lower blood homocysteine levels, another risk factor for heart disease. When nutritionists abandoned meats as part of heart-healthy diets, they unknowingly 'threw out the baby with the bath water.' It was the saturated fat that accompanied the lean protein that was harmful—not the lean protein itself."

The Athlete and the Caveman

One of the most famous supporters of the Paleo Diet is Charles Poliquin, a strength coach who has worked with more than 400 Olympians and hundreds of professional athletes. Says Poliquin, "The data by researchers of Paleolithic nutrition do not support the traditional food pyramid endorsed by most dietitians nor give credence to the "natural diets" advocated by granola-heads, fruitarians, vegetarians, natural

hygienists and macrobiotic suicidals. Although I often allow my athletes to have some pasta or bread on their 'cheat day,' I believe that a large segment of the population has yet

Charles Poliquin's new book, German Body Comp Program, provides detailed menus based on the Paleolithic diet. (see page 7)

to adapt to processing grains. In fact, only about 25 percent of my athletes can handle grains on a regular basis."

With all the concern about obesity in this country, especially among children, a Paleolithic approach to nutrition would help, because it contains high levels of lean protein. Says Cordain, "Lean protein has been shown repeatedly to be the most satiating of all three macronutrients. Numerous clinical trials have



Although not popular with turkeys, diets higher in protein have become trendy for those seeking to lose weight.

shown that people eat fewer calories during a highprotein meal compared to high-fat or carbohydrate meals, and they eat fewer calories at the meal immediately following a high-protein meal. Finally, lean protein has two to three times the thermic effect of either carbohydrate or fat—meaning that it elevates the metabolism five to ten percent higher than when either carbohydrate or fat are consumed." Just ask Dan John.

John, a former nationally ranked discus thrower and weightlifter who was featured in the Winter 2003 issue of *BFS*, used the basic concepts of the Paleo Diet several years ago to lose approximately 50 pounds of fat within a few months. What's more, John, who is still winning championships in the master's competition, said the weight loss had no adverse effects on his performance.

If you're an athlete and want to fulfill your athletic potential or if you are simply looking for a scientifically sound nutritional system to improve the quality of your life, consider the Paleo Diet. What's more, because most of the foods consumed on a

Paleo Diet are raw and the foods that must be cooked are easy to prepare, it's the perfect diet for today's fast-paced lifestyle. Just ask Charles Poliquin.

"One of my favorite mottoes about the Paleolithic Diet is 'If it does not fly, swim, or run and it's not green, don't eat it!" he says. "When I begin working with new clients, especially those who are overweight, I tell them to eat only those foods that fit into this guideline. If you have any doubts about putting a certain food in your mouth, ask yourself this question: 'Would a caveman have had access to this food?' If the answer is no, don't eat it!"

Common contemporary foods in the five major Paleo diet food groups.				
Vegetables	Fruits	Nuts/Seeds	Seafood	Meats
Potato	Banana	Almonds	Shrimp	Beef
Iceberg Lettuce	Apple	Walnuts	Cod	Chicken
Tomato	Watermelon	Pecans	Pollock	Pork
Onion	Orange	Filberts	Catfish	Turkey
Carrot	Cantaloupe	Brazil Nuts	Scallop	
Celery	Grape	Pistachio Nuts	Atlantic Salmon	
Sweet Corn	Grapefruit	Macadamia Nuts	Flounder	
Broccoli	Strawberry	Coconut	Sole	
Green Cabbage	Peach	Sunflower Seeds	Oyster	
Cucumber	Pear	Pumpkin Seeds	Orange Roughy	
				PRISCUTT

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