Out of Africa: What Dr. Price Dr. Burkitt Discovered in Their Studies of Sub-Saharan Tribes

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Dr. Weston Price visited Africa in 1935. His journey into the interior began in Mombasa on the east coast of Africa, inland through Kenya to the Belgian Congo, then northward through Uganda and the Sudan.

Throughout his studies of isolated populations on native diets, Price was continually struck by the contrast of native sturdiness and good health with the degeneration found in the local white populace, living off the "displacing foods of modern commerce" such as sugar, white flour, canned foods and condensed milk. Nowhere was the contrast more evident than in Africa. In addition to their susceptibility to chronic diseases such as cancer, heart disease, intestinal problems, appendicitis, gall and kidney stones and endocrinological dysfunction, the Whites also showed little resistance to infectious diseases carried by mosquitoes, lice and flies. "In all the districts, it was recognized and expected that the foreigners must plan to spend a portion of every few years or every year outside that environment if they would keep well. Children born in that country to Europeans were generally expected to spend several of their growing years in Europe or America if they would build even relatively normal bodies."[1] By contrast, the native Africans exhibited a very high tolerance to infectious disease including malaria carried by mosquitos, typhus and fevers transmitted by lice and sleeping sickness borne by the tsetse fly.

Africa also afforded Dr. Price the opportunity to compare primitive groups composed largely of meat eaters, with those that were mostly vegetarian. The Masai of Tankanika, Chewya of Kenya, Muhima of Uganda, Watusi of Ruanda and the Neurs tribes on the western side of the Nile in the Sudan were all cattle-keeping people. Their diets consisted largely of milk, blood and meat, supplemented in some cases with fish and with small amounts of grains, fruits and vegetables. Rich in animal fats, these diets provided large amounts of the fat-soluble vitamins Price discovered to be so necessary for proper development of the physical body and freedom from disease. The Neurs especially valued the livers of animals, considered so sacred "that it may not be touched by human hands. . . It is eaten both raw and cooked."[2]

These tribes were noted for their fine physiques and great height-in some groups the women averaged over 6 feet tall, and many men reached almost seven feet. Examinations of their teeth revealed very few caries, usually less than 0.5%. Nowhere in his travels had Price yet found groups that had no cavities at all, yet among the cattle-herding tribes of Africa, Dr. Price found six tribes that were completely free of dental decay. Furthermore, all members of these tribes exhibited straight, uncrowded teeth.

Largely vegetarian Bantu tribes such as the Kikuyu and Wakamba were agriculturists. Their diet consisted of sweet potatoes, corn, beans, bananas, millet and Kafir corn or sorghum. They were less robust than their meat-eating neighbors, and tended to be dominated by them. Price found that vegetarian groups had some tooth decay-usually around 5% or 6% of all teeth, still small numbers compared to Whites living off store-bought foods. Even among these largely vegetarian tribes, however, dental occlusions were rare, as were degenerative diseases.

Many investigators have mistakenly claimed that Bantu groups consumed no animal products at all. Some tribes kept a few cattle and goats which supplied both milk and meat; they ate small animals such as frogs; and they put a high value on insect food. "The natives of Africa know that certain insects are very rich in special food values at certain seasons, also that their eggs are valuable foods. A fly that hatches in enormous quantities in Lake Victoria is gathered and used fresh and dried for storage. They also use ant eggs and ants."[3] Other insects, such as bees, wasps, beetles, butterflies, moths, cricket, dragon flies and termites are sought out and consumed with relish by tribes throughout Africa.[4] These insects are rich in the fat soluble factors found in blood, organ meats, fish and butterfat. It is significant that the vegetarian groups practiced the feeding of special foods during gestation and lactation. Apparently carnivorous groups found no need to supplement the diet, as it was already rich in the factors needed for reproduction and optimum growth.

The healthiest tribe that Price studied was the Dinkas, a Sudanese tribe on the western bank of the Nile. They were not as tall as the cattle-herding Neurs groups but they were physically better proportioned and had greater strength. Their diet consisted mainly of fish and cereal grains. This is perhaps the greatest lesson of Price's African research-that a diet of whole foods, one that avoids the extremes of the carnivorous Masai and the largely vegetarian Bantu, but incorporates both nutrient dense grains and seafood, ensures optimum physical development.

More than 40 years after Price's epic voyage, Doctors Edward Williams and Peter Williams wrote of their experience treating Ugandans at the Kuluva Hospital in the West Nile district of Uganda.[5] By the late 1970's, the nomadic cattle-herding tribes had largely disappeared. The inhabitants of the region were peasant agriculturists, a mixture of nilotic tribes, whose diet consisted of grain, usually millets, cassava flour, lentils, peanuts, green vegetables such as spinach and cabbage, and bananas, supplemented with small amounts of milk, meat and fish.

They make no mention of the widespread practice of insect consumption-a common mistake among modern investigators. Millet was "processed at the homestead." Tea had become a favorite drink and sugar was very popular, with the average daily adult intake reported to be at least 100 grams. Peanut oil and cottonseed oil had been added to the diet. Both cigarettes and alcohol were available, but used only in small quantities.

The doctors associated the emergence of diabetes with sugar consumption. High blood pressure had become more common, and could usually be reduced by cutting back on sugar. Dental caries had become more frequent. But other diseases-ischemic heart disease, constipation, hemorrhoids, varicose veins, appendicitis, thyroid problems, ulcers, arthritis, anemia and kidney stones-remained rare. Their native foodstuffs still protected them against the incursion of refined foods.

In an article on the Africans of Zimbabwe, author Dr. Michael Gelfand reports that by 1980 western foods such as white bread, refined sugar, jam and tea had become popular.[6] These were usually eaten between the main meals, which still consisted of native foods including stiff maize porridge, vegetable relish and some meat or fowl. Diabetes had increased but other diseases remained relatively rare. The exception was high blood pressure, which Gelfand discovered to be quite common when he began his medical practice in the 1940's. He observes that hypertension in the Zimbabwe African does not seem to predispose him to coronary heart disease. Obesity is rare in Zimbabwe-whereas it is endemic among more westernized Africans living in South Africa.

Drs. Williams and Gelfand stress that the likely culprit in the slow emergence of dental caries and diabetes is not animal fat, but refined sugar. Nevertheless, their articles form part of a collection whose editors are firmly committed to the lipid hypotheses, namely that animal products and saturated fat contribute to the Western plague of atherosclerosis, diabetes, hypertension and obesity. While Weston Price's *Nutrition and Physical Degeneration* moldered in obscurity, Western Diseases: *Their Emergence and Prevention*, edited by H.C. Trowell and D.P Burkitt received widespread recognition. Price noted that all healthy African groups had good sources of animal fat, and that the healthiest groups consumed less, not more, of plant foods; Burkitt and Trowel, however, postulate that the increase in Western diseases among Africans is due to a reduced consumption of plant foods containing dietary fiber. Heart researcher George Mann's work is conspicuously absent from Burkitt's *Western Diseases*. Mann studied the Masai tribes and came to the politically incorrect conclusion that their high fat diet did not predispose them to heart disease.

But Burkitt and Trowell are firmly committed to the McGovern Committee's dietary goals, namely the replacement of animal products with grains, as a way to "prevent cancer and heart disease" and to "forestall world hunger." Burkitt's writings on dietary fiber led to calls for increased amounts of whole grains in the American diet in order to prevent colon cancer and other diseases of the intestinal

tract. Dietary fiber soon became a household word, and America embraced the oat bran fad.

What Burkitt and Trowell failed to recognize is that Africans do not eat their grain foods as we do in the west, in the form of quick rise breads, cold cereals, energy bars and pasta, but as a sour or acid porridge. Throughout Africa, these porridges are prepared by the fermentation of maize, sorghum, millet or cassava. Preparation "at the homestead" begins with washing the grains, then steeping them in water for 24 to 72 hours. The grain is drained and the water discarded. Soaked grains are wet milled and passed through a sieve. *The hulls or leavings in the sieve are discarded*. In other words, *the Africans throw away the bran*. The smooth paste that passes through the sieve may undergo further fermentation. Soaking water that rises to the top is discarded and the slurry is boiled to make a sour porridge. Sometimes the slurry is allowed to drain and ferment further to form a gel-like substance that is wrapped in banana leaves, making a convenient and nutritious energy bar that can easily be carried into the fields and consumed without further preparation.[7] Often sour porridges are consumed raw as "sorghum beer" a thin, slightly alcoholic slurry that provides lactic acid and many beneficial enzymes.[8]

Acid porridges made from grains are far superior to western grain preparations. Fermentation increases mineral availability by neutralizing phytic acid, increases vitamin content, predigests starches and neutralizes enzyme inhibitors. Insoluble fiber can cause pathogenic changes in the intestinal tract unless properly soaked in an acid medium.[9] Oat bran, which is high in phytic acid, as well as related bran products can cause numerous problems with digestion and assimilation, leading to mineral deficiencies, irritable bowel syndrome and autoimmune difficulties such as Crohn's disease. Case control studies indicate that consumption of cereal fiber can be linked with *detrimental* effects on colon cancer formation.[10]

In his lectures, Burkitt was fond of pointing out that the typical African stool specimen was large and soft, and that stool transit times were rapid, compared to the puny hard fecal deposits and slow transit times of hapless Europeans. The large amount of fermented food, easy to digest and contributing to the health of intestinal flora, is the most likely explanation for this phenomena-fermented dairy products in European groups and fermented fish among the Eskimos accomplish the same results.

Another fermented food consumed throughout Africa, and universally ignored by most investigators, is a paste made from dried shrimp and hot peppers. This strong spicy condiment is a rich source of fat soluble vitamins-shrimp has ten times more vitamin D than organ meats! Vitamin D protects against cancer of the colon and rectum, nervous disorders such as MS and osteoporosis[11]-all of which are extremely rare among Africans.

Several researchers have noted that along with sugar, tea and white flour, vegetable oils made from peanuts, cottonseed or soy have made inroads into the African diet. What these oils replace is highly saturated palm oil, which has been a staple in Africa for millennia. This means that overall consumption of saturated

fat in Africa has declined, not increased. Like vitamin D, saturated fats play a role in protecting the intestinal tract from cancer and other diseases, and in preventing osteoporosis.

Doctors who write about diet are severely limited by their lack of familiarity with basic cooking methods. One gets the distinct impression, in reading Dr. Burkitt's book, that none of the authors has tasted traditional African food, let along observed its preparation. Otherwise they would have known that Africans customarily cook calves feet to make broth for soups and stews. Often dried fish and shrimp are added to these stews, along with meat, peanuts and vegetables. Pieces of gristly calves foot go into the pot along with everything else and are eaten with relish. American are just beginning to discover the health benefits of beef cartilage; African have enjoyed such benefits for centuries.

Burkitt claims that salt is new to the African diet; in the same volume, however, Gefland asserts that salt has been in common use by Africans for a long period of time. Price and other have noted that in parts of Africa where salt is scarce, the natives burn sodium-rich marsh grasses and add them to their food. Milk and blood are naturally salty, as are dried shrimp and fish products that find their way inland from coastal areas. The ubiquitous fermented shrimp pastes are extremely salty.

Many traditional African foods are for sale at the Oyingbo Market in Hyattsville, Maryland-shrimp pastes, ogi flour (made from fermented millet), palm oil, dried shrimp and fish, peanuts, vegetables, liver and calves feet. But most of the shelf space is filled up with newfangled foods-BisQuick, Wesson oil, Cheerios, margarine, sugar, white bread, cookies, pasta and soft drinks. Only recent African immigrants buy the traditional items, the ones with the fine physiques and beautiful straight teeth. Younger Africans, and those who were born here, have opted for the displacing foods of modern commerce. . . and it shows. Their children are either thin or overweight and have narrow faces and crooked teeth. Modern medicine may palliate the numerous health problems that accompany such physical degeneration, but only a return to traditional foods and preparation techniques can ensure optimal health for future generations of Africans, both in America and in their home continent.

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Mary G. Enig, PhD, FACN, CNS, is an expert of international renown in the field of lipid chemistry. She has headed a number of studies on the content and effects of trans fatty acids in America and Israel and has successfully challenged government assertions that dietary animal fat causes cancer and heart disease. Recent scientific and media attention on the possible adverse health effects of trans fatty acids has brought increased attention to her work. She is a licensed nutritionist, certified by the Certification Board for Nutrition Specialists; a qualified expert witness; nutrition consultant to individuals, industry and state and federal governments; contributing editor to a number of scientific publications; Fellow of the American College of Nutrition; and President of the Maryland Nutritionists Association. She is the author of over 60 technical papers and presentations, as well as a popular lecturer. She is the author of Know Your Fats, a primer on the biochemistry of dietary fats as well as of Eat Fat Lose Fat (Penguin, Hudson Street Press, 2004). She is the mother of three healthy children.

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Gregory Stanton says:
February 7, 2016 at 8:38 am

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