

THOUGHT FOR FOOD



Dr. Levin

NEW YORK - Certainly, every executive in 20th Century international commerce knows the toll for every lap, every revolution of the treadmill in "the Executive Rat Race." The key concept is Stress, but too many people for whom this is a serious problem have a limited understanding of the word, and, usually, inadequate and inefficient response.

In my practice in New York City there is an alarming increase in the number of patients who "just don't feel right," without complaining of a specific complex of symptoms and signs to allow

Keeping the Executive Nose Above Water

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for a diagnosis of a particular "Disease." These are the people who are categorized as "neurotic" because no name can be found for their complaints. It includes a large number of "hyperactive" children with "school problems" or "learning disabilities," most of the "tired Housewives" and "antisocial" people who fall asleep at parties or in the middle of a lecture or Ballet, and of course the frazzled executive who has "lost his touch." These vague complaints, along with headaches, musculoskeletal pains, digestive disturbances and multitudinous other symptoms frequently precede the serious Stress-Induced Illnesses which have Names (Atherosclerosis and Heart Disease, Ulcer, Cancer, Arthritis.)

What better method is there to illustrate the Rat Race than by experiments with rats? In one classical experiment Dr. Benjamin Ershoff tested rats for endurance by placing them in a barrel of

water from which there was no escape and recording the length of time they could swim before exhaustion and drowning.

On standard rat "chow" (prepared by the usual process of mixing together all the known essential nutrients) the average time was less than twenty minutes. By simply adding raw liver (with its yet unknown but still essential synergistic micro-nutrient factors) the litter mates swam for over two hours! At this point, the experiment was terminated.

A second experiment also demonstrates the short-sightedness of using commercial food substitutes. Most physicians today admonish their patients to avoid eggs (cholesterol, you know) and to use "egg substitutes."

The accompanying picture tells an interesting story.

Another important factor in determining the Stress Response of individuals is exposure to toxic substances - some of these cannot be recognized easily at present, but the simple process of analyzing scalp hair, as I reported at the Monte Carlo Symposium, helps us to determine whether adequate quantities of essential minerals are present in the body and equally importantly reveals clues to toxic minerals such as Lead, Mercury and Cadmium, when blood studies are frequently misleading.

What I find most exciting about the work of Dr. Hisateru Mitsuoka, this year's distinguished winner of the Agricultural and Food Chemistry Award, is the fact that his methods preserve nutrient value without harmful additives - it is Food Technology at its finest.

Of course, emotional instability reflects Stress, and also aggravates the Stress Response! Religion, Medication and other techniques can

help to stabilize our emotions. Exercise is a critical requirement of the healthy body. behavior patterns can be changed.

Credit for the clarification of the precise biological mechanism and its relevance to degenerative disease clearly belongs to Hans Selye, M.D., who chaired the Second International Symposium on the Management of Stress held in Monte Carlo in Nov. '79 (a program which also featured Dr. Jonas Salk and four Nobel Prize-winners) and who will preside again at the Third Symposium to be held in Nov. '81 in Tokyo.

Briefly stated, so that the non-nutritionist can make informed choices about foods and basic life style, the current theory of Stress-Induced Illness is known as the General Adaptation Syndrome (G.A.S.)

In response to any deviation (stress) from the status quo the body undergoes three stages of adaptation: 1) The alarm phase, 2) The adapta-

Egg substitute vs the real thing

At three weeks of age, the nursing pups from mother rats fed a commercial egg substitute averaged 31.6 gm in weight. Pups from mothers fed with whole egg or commercial laboratory chow averaged 66.5 gm and 70 gm, respectively. Both the mother and the pups fed the egg substitute had diarrhea within one week; the other animals were not so afflicted. The pups fed the two egg mixtures were weaned at five weeks. The general appearance of the rats fed the egg substitute indicated a gross deficiency in one or more nutritional factors. Moreover, all pups receiving the egg substitute died within three to four weeks after weaning.

MEENA KASMAI NAVIDI, M.S., and FRED A. KUMMEROW, PH.D., University of Illinois, Urbana. Nutritional value of Egg Beaters® compared with "farm fresh eggs." *Pediatrics* 53:565-566, 1974.



Appearance of weanling rats fed shell eggs (left) or commercial cholesterol-free egg substitute (right).

match statistical averages.

By literally inventing new words, Dr. Selye explained to all of us that Stress is the sum total of all the reactions by the body to its Stressors - the things which most of us speak about, erroneously, as the Stress in our lives - financial problems, marital conflicts, job anxieties, etc., are the Stressors which may or may not produce enough changes (Stress Response) to result in anything from mild symptoms to fatal illnesses. All of us must learn how to deal with these Stresses to minimize their adverse effects, so that we may deal with "Stress Without Distress."

What accounts for the tremendous variation in individual tolerance to stress? Certainly heredity is of great importance. The second factor is the environment, nutrition being the most important.

There are only three types of food available: those that are essential and healthful, those that are toxic, and those that are not necessary, but also not toxic. Technology has created a host of new "foods" that are man-made and are, therefore, foreign to the body's internal environment. This "chemical feast" has economics, not nutrition, as its main reason

tion phase, 3) The exhaustion phase. Depending on the severity and duration of stress the G.A.S. may be short or long, intense or mild. The G.A.S. may fall in any stage if the stress is overwhelming.

For example, upon initial exposure to sunlight the unadapted body's response would be somewhere between mild sunburn and fatal heat stroke (Stage 1).

Given the opportunity to develop an adaptation, Stage 2 would present as suntan and amazing tolerance to the sun. Stage 3 is the eventual failure to maintain adaptation - either acutely from excessive exposure (as when totally unprotected in the desert) or much later, perhaps long after the suntan has disappeared, by skin cancer.

By the very nature of things, doctors tend to see patients in either Stage 1 or Stage 3. The relationship between the stress and the Stage 1 (alarm) reaction may be obvious. However, in many instances the Stage 3 patient would seem to have no relationship between his adaptive failure and his complaints.

Like the problem of the non-swimmer who drowned in a lake with an average depth of two feet, the "normal" standards represent a statistical phenomenon. We need to remember that each body has its own individual "norms," which may or may not

Nutrition: A Key to "Stress Without Distress"

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for existence. Our bodies were designed to use natural foods to supply body building nutrients and fuel for energy. Modern labor-saving devices have reduced the need for expending high energy, thus, less consumption of calories is required, while keeping essentially poor nutritional balance. Food consumption would be of higher quality with more concentration on calorie content. Yet, analysis of our food supply often shows just the reverse. The ratio of protein to the calorie has decreased in farm produce such as wheat, and this inferior grade of wheat is processed in such a way as to remove at least sixteen known nutrient substances to "prevent spoilage" AND IS THEN "enriched" with four synthetic "nutrients"; the resulting flour is then processed into bread with the "legal" addition of an unbelievable number of chemical additives.

In less than 100 years the human body's ability to adapt has been stressed to exhaustion by the avalanche of

Our present-day refined sugars have no nutritional value other than calories, and are absorbed without our complicated digestion processes, so rapidly that the homeostatic mechanisms are overwhelmed.

Fats and oils were a problem in "olden times." Lack of refrigeration facilities severely limited the length of time between preparation and use, because natural fats become rancid. Technology's "solution" was: hydrogenation. By changing the chemically active locations on the fat molecules to an inactive form, rancidity was prevented. By such "advances" in food technology, we are simultaneously deprived of the essential fatty acids and are subjected to new toxic substances.

Cholesterol is a fatty substance with a myriad of essential functions in the body. Excess amounts of cholesterol accumulate in the body with degenerative diseases. This observation has led to the erroneous conclusion that cholesterol in the diet was the cause of the

degeneration. That's like blaming the automobile's black spark plugs on dirty gasoline, when it's more likely to be from a clogged filter, poor carburization, poor timing, etc. The healthy body needs and uses cholesterol and combines it with essential fatty acids into esters. If healthy fatty acids are not present, unhealthy cholesterol esters

So, if you are among those who "just don't feel right," without having of a specific symptom complex, following are some recommendations for preventing or alleviating this problem:

Avoid any processed food, when possible. The worst offenders are the 'pure white' -- sugar, flour, shortening and anything that contains them in any form.

Avoid any chemical additives when possible including 'certified' artificial food colors, anti-oxidants, stabilizers, preservatives.

Beware of any food that does not spoil. Use only fresh meat, vegetables, fish, when possible.

Read every label for ingredients. Pay particular attention to the first four ingredients listed. Warning words include hardened, hydrogenated, saturated vegetable oil or shortening, corn syrup, sugar, emulsifiers, coloring.

Avoid stimulant drugs.

The only healthy drinks are pure water, fresh-squeezed juices, herbal teas and milk, preferably raw.

Breakfast is important. A good breakfast includes at least 4 oz. of high-quality protein -- meat, fish, poultry or cheese alone or 2 oz. plus two eggs.

Nibble frequently during the day -- nuts, seeds, fruit and cheese or other protein in small quantities.

Use a wide variety of vegetables raw or lightly steamed.

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