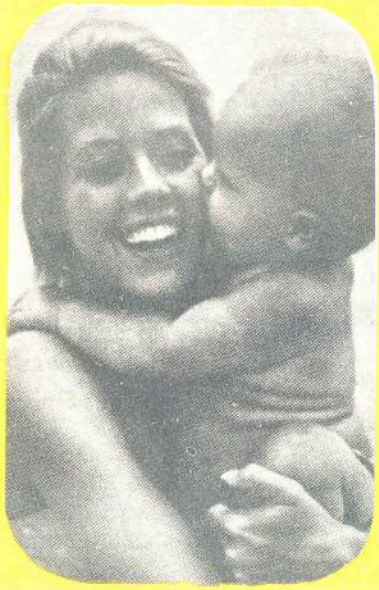
The Covenant Health Digest



INPORTANT NOTICE TO ALL READERS

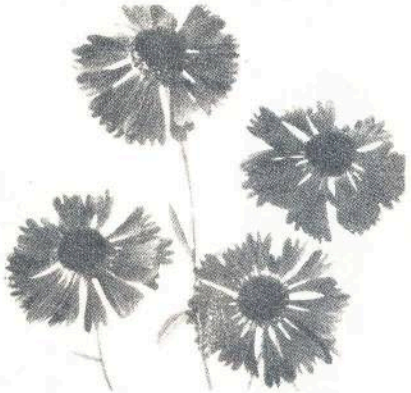
It is with sincere regret that, due to the increased cost of printing and postage, the Board of Management of The Federation of the Covenant People have decided that *The Covenant Health Digest* should be phased out during 1976 so that, by December 1976, the final issue of the magazine will be printed.

All paid-up subscriptions will be met but any reader whose subscription has lapsed or will lapse before the final issue is printed may obtain the extra copies by arrangement with the office.

The health service which has been provided will however, not be lost as it is our intention to print important health articles from time to time in our official magazine *The Covenant Message* and readers who do not receive this journal will be invited to subscribe to *The Covenant Message*.

We do regret the necessity for this step and would like to thank all subscribers for their support over the past ten years.

The Editor.



Covenant Health Digest

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News Report

Genetic cure bid fails.

NEW YORK – An international attempt by scientists and doctors to treat a rare genetic disease by changing the patients' hereditary makeup has ended in failure.

Researchers still consider the basic idea sound and are working to develop a similar treatment for another genetic disease.

In the only recorded attempt at human genetic engineering, three German children whose bodies failed to produce the essential enzyme arginaise, were injected with a virus known to produce the enzyme.

Although the virus cannot multiply in human beings, it was hoped the virus genetic information would become part of the children's cells to make the enzyme.

Arginase is needed to metabolise the amino acid arginine, which is present in proteincontent foods. Without the enzyme arginine accumulates in body fluids, damaging the brain and causing mental retardation, epilepsy and other neurological and muscular defects.

The German children, all sisters from a small West German village, are the only known victims of this particular genetic defect.

When Dr. Stanfield Rogers, a professor of bio-chemistry at the University of Tennessee, learned of the Children's problem he suggested treating them with the virus.

The girls, each received an intravenous virus injection in 1970. In the first public progress report on the case last Friday, the research team told the international conference of the Association for Children with Learning Disabilities that the virus injection had apparently not helped.

Doctors are now trying to introduce another piece of genetic information into the virus to enable it to produce the enzyme histidase – a lack of which causes the human genetic disorder histidinemia.

Since the first sign of histidinemia is speech difficulty, it may be possible to find and treat affected children before brain damage becomes severe.

The following are two letters in from readers with health hints which are well worth passing on:–

Mr. C.J.L. writes:

A friend of mine suffered from stomach ulcer some time ago. Somebody told him ulcers were unknown to the lumbermen of Canada, as these lumbermen continually chewed a piece of elm tree bark. Investigations carried on from this led to the production of a powder extracted from the elm tree which they called Slippery Elm. Regular dosage of this, which he took for several years gave him wonderful relief In later years he took only an occasional dose. Some eighteen months or more ago he had a haemorrhage of the stomach. A recurrance of an ulcer was suspected so he was admitted to hospital for possible surgery. Before operating he was X-rayed to find there was no trace of ulcer only the scar of the ulcer he suffered from years previously. He was treated and discharged feeling fit again for some considerable time.

Last year he and his widowed daughter, who live together were down at the coast on a month's holiday. A day or two after their return, he was feeling ill and decided to go to bed about 9 p.m. He had hardly settled in bed when he had a very severe haemorrhage again im-

mediately being rushed off to hospital again. A specialist was waiting to see him on arrival. Stomach ulcer was again suspected and it was more or less decided an operation the following day would be necessary. He was X-rayed again the following morning only to find, again no sign of an ulcer, only the old scar.

The Specialist then inquired if he had been taking an excess of asprin. It was then revealed his local Doctor had prescribed two indisist capsules per day for the relief of arthritic pains which had been troubling him. The Specialist said he had taken the last of these as they were nothing more than concentrated aspirin which if taken in excess caused enlargement of small blood vessels in the stomach with eventual rupture and bleeding. Within a week he was out of hospital again. He had had no more tummy trouble but the arthritic condition developed until he could not hold a hammer and of course suffered agony at times. He now tells me he is taking nutmeg with almost everything he eats, even down to a little dusted into soup like pepper. He has now lost a lot of the pain and he can again use his hands to grip.

Another friend writes that it is her belief that people don't read their Bibles often enough and to encourage them has sent in the recipe for Bible Cakes:

1. Half lb. Judges, Chapter 5, Verse 25.
2. Half lb. Jeremiah, Chapter 6, Verse 20
3. 1 Tablespoon 1st Samuel, Chapter 14, Verse 25
4. 3 of Jeremiah, Chapter 17, Verse 11.
5. Half lb. 1st Samuel, Chapter 30, Verse 12
6. Half lb. Nahum, Chapter 3, Verse 12 (chopped).
7. 2 oz. Numbers, Chapter 17, Verse 8 (Blanched and chopped).
8. 1 lb. 1st Kings, Chapter 4, Verse 22
9. Season to taste with 2nd Chronicles, Chapter 9, Verse 9.
10. 1 pinch of Leviticus, Chapter 4 Verse 5.
11. 1 Teaspoonful of Amos, Chapter 4, Verse 5.
12. 3 Tablespoonsful of Judges, Chapter 4, Verse 19.

Method.

Beat 1,2 and 3 to a cream.
Add 4 one at a time, then add 5,6,7. Beat again.
Add 8,9,10,11, having previously mixed them, add 12.

Bake in moderate oven for 1 and a half hours.

Aspirin a danger to baby, mother.

Regular use of aspirin during pregnancy has been found to have detrimental effects on the health of both mother and baby.

In the mother it seems to cause a higher incidence of anaemia, birth complications, haemorrhage before and after birth, and transfusions at delivery.

In babies a higher stillbirth rate and significantly reduced birth weight was found. The duration of pregnancy was slightly longer.

The study, reported in The Lancet, was done by two doctors in Sydney. During the 28 months of a survey, 144 regular aspirin takers were identified. Most of the women, who took mostly powders, said they started taking them in their teens for recurrent headaches or menstrual pain, for "nerves" or as a "pick-me-up."

In a number of cases there was a family pattern of aspirin abuse.

Regular aspirin takers were divided into two groups - those who swallowed powders at least once a week, and those who took them daily - and compared with a control group who did not take aspirin regularly.

In all instances the incidence of complications showed a decrease with daily takers at the high end of the scale and the controls at the low end.

The doctors recommend that pregnant women be screened to asprin taking and counselled on the possible dangers of continued use during pregnancy.

Button spiders thrive.

The rains during the past months have brought with them an increase in the number of button spiders on the Reef.

A Krugersdorp man, Mr. Errol Allen, has found about 10 of the tiny spiders in the past few days, one or two of them indoors.

Experts say there is no cause for alarm. The spiders are poisonous, but there are very few recorded cases of anyone dying from their bites.

There are two species of button spiders in South Africa. The most poisonous, latrodectus mactans, is more common in the Cape wheat belt than on the Reef, where the latrodectus geometricus - identified by a red mark underneath it - is most common. The button spider's markings vary, and the body can be any colour from light brown to black.

"When in doubt steer clear," is the obvious lesson.

Mr. John Ledger of the South African Institute for Medical Research said the danger of button spider bites should not be underestimated - anyone bitten should be rushed straight to a doctor. The offending spider should also be taken along for identification if possible.

The spiders are not easily killed by insecticide sprays, he said, because of the strong web surrounding them. They should rather be squashed.

Leukaemia may be contagious, doctors claim

LONDON - A group of American doctors are studying the possibility that leukaemia, a cancer of the blood, may be contagious.

If their suspicions are proved correct it will provide more weight to the theory that some cancers are caused by infection, possibly a virus. Others hold that the answer lies in heredity.

Viruses have been shown to transmit certain cancers in cats, but proof of a cancer-causing virus in man has yet to be found, despite a 10 year search.

Now four researchers from the US National Cancer Institute in Baltimore say they have found that patients with leukaemia, and certain other serious illnesses, have often been in close personal contact with sufferers of the disease.

The contacts were sometimes lovers, neighbours, housekeepers, or close friends according to a report of their work in the medical magazine Lancet.

Thirty-four of 53 patients with the disease were found linked in some way. The study, from 1964 to 1973 spanned three regions - suburban, industrial, and rural - of West Virginia.

"These instances of close personal contact between individuals with leukaemia cannot lightly be dismissed," they said, Leukaemia is a usually fatal disease which frequently hits children and young adults. It is caused when white blood cells start over-producing uncontrollably.

The doctors admit there is still need for proof that the associations found among their patients were more common than would normally be expected in the region, so a fourth study is under way.

US lays open bad surgery.

An alarming picture of incompetence and unnecessary surgery in America's operating theatres is being presented to the public by doctors, Congressional investigators and others following the preliminary findings

of a five-year self-examination of surgery by the two leading professional groups.

About 18-million Americans had operations last year. More than 250 000 died during or shortly after their operations, according to figures from the National Centre of Health Statistics.

This represents one death for every 72 operations.

According to the findings of a Congressional sub-committee, at least 11 900 surgery-related deaths - whether they were due to accident, ignorance or negligence - were entirely avoidable because the surgery involved was not necessary to begin with.

The New York Times offered this example of incompetence reported from a hospital in New York.

A woman was diagnosed as needing gall bladder surgery. During the operation at a New York municipal hospital the surgeon noticed a tumour on a kidney, and without ordering a biopsy, removed the organ. The woman died. She had had only one kidney to begin with. The tumour was benign.

Hysterectomies have come under particularly close scrutiny. In some hospitals they are often referred to as "hip-pocket hysterectomies," meaning that the only beneficiary is the surgeon's wallet.

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HANDY HINTS

TRY THIS — When you need a little grated cheese, use a potato peeler. It's easy to handle and easier to clean than a grater.

PRETTY BUBBLES — Small children enjoy blowing bubbles. By adding a few drops of glycerine to soapy water big, strong, rainbow coloured bubbles can be produced.

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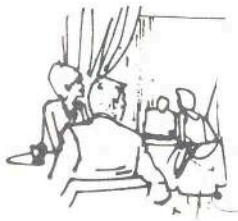
Refined Carbohydrates In Our Affluent Society



By C.R. Moore

Though I have lived for over 40 years in large cities, I had the good fortune to grow up on a farm, close to Nature, an education in God's ways which city bred youth may miss to its own detriment. Looking back now I realise how much our environment has changed for the worse. In my youth our vehicles were drawn by oxen, mules or horses, and over long distances we usually travelled by train. The motorcar was a rarity then. Today our cities are choked with motor vehicles, giving rise to atmospheric pollution which has become a real problem.

Industrialisation has also increased enormously, adding to the pollution problem to the extent that even our oceans have become so polluted as to poison the animal life in them. Meanwhile the quality of our foodstuffs has declined, but this has been so slow and insidious as to pass almost unnoticed by members of the public, who do not realise that the increasing incidence of disease in our affluent society is mainly due to the poor quality of the food we eat. Unfortunately most of our physicians are unaware of the real cause of increasing disease among their patients, because nutrition is seldom taught in medical colleges. Fortunately there were, and are, dynamic physicians among them, from Sir Robert McCarrison onwards, who have carried out extensive research in nutrition, and have had the courage to publicise the results of their work. They have found that there has been a

great deterioration in the quality of our carbohydrates, mainly in such items as wheat, maize and rice, but also in other grains.

The increased efficiency of our flour mills and the necessity to store the milled flour for a year or more has led to the elimination of the germ and bran from our grains. The germ and the bran are the vital, life giving parts of the grains, which contain the vitamins, amino acids and minerals our digtive systems require to digest these grains completely. Digestion has to be carried out at body temperature, which is less than 100°F, or 38°C, whereas in man-made factories temperatures greatly in excess of this are essential.

The elimination of most of the germ and bran from our wheat and other grains has had unfortunate consequences for our Western civilisation, as it leads to all types of disease which lower our ability to perform efficiently and to withstand the psychological warfare now being waged against the White man all over the world. It is a new type of warfare quite different from the fighting war which the White man knows best - it is, in short, a prolonged and insidious propaganda battle for the control of men's minds, waged by unscrupulous and evil men, of which Joseph Stalin was a good example. This is how Stalin explained the creed which actuated him: "To choose one's victim, to prepare one's plans minutely, to stake an implacable vengeance, and then go to bed . . . . there is nothing sweeter in the world." This is how our enemies view this psychological Third World War - the end justifies the means, morality does not count. Therefore we should strive so to live that we have healthy minds in healthy bodies, to fit us for victory over the forces of evil.

In 1966 a very important book appeared on this unfortunate refinement of our carbohydrate foods, written by two physicians T.L. Cleave, M.R.C.P. (London) formerly Director of Medical Research, Royal Navy Medical School, Alverstoke, England, and G.D. Campbell, M.D. (Edinburgh) F.R.C.P. (Edinburgh) Physician to the Diabetic Clinic of the King Edward VIII Hospital, Durban, Natal. It is titled

Diabetes, Coronary Thrombosis and the Saccharine Disease. Here Saccharine stands for sugar, not the artificial sweetener. I had the good fortune to attend a lecture by Dr. Campbell, in which he elaborated on what is written in this book.

The authors start by explaining that in 1815 the consumption of sugar in Britain was only 15 lbs per head per year. By 1900 this had risen to 90 lbs and by 1965 to 120 lbs per head per year. Our digestive systems could not possibly adapt themselves to this great change in so short a period. This applied also to the refined milling of flour in which most of the germ and the bran are removed.

Harmful effects of refined carbohydrates are produced in 3 ways: A. through the concentration of the carbohydrate component, leading to over-consumption; B. through the removal of fibre; C. through removal of the protein, leading to the formation of gastric and duodenal ulcers.

Over-consumption of refined carbohydrates is due to the concentrated state of the carbohydrate leading to deception of the taste buds of the tongue, and also deception of the instinct of appetite - compare the rapid ingestion of the daily 5 oz of sugar per head compared with the time taken to consume the 2 and a half lbs. of sugar beet from which it is derived. Who would eat 2 and a half lbs. of beet in one day? As regards the removal of fibre, the refining process concentrates sugar 8 times as much as it concentrates the flour, so we regard sugar as being 8 times as unnatural, hence 8 times as dangerous. For it is the unnaturalness which governs the deception of the tongue and appetite and thus the danger of over-consumption. But both refined sugar and flour are damaging.

The authors contest the view that fats are the main cause of coronary (heart) disease, including those in milk and butter. These have been eaten by human beings for thousands of generations, yet the incidence of coronary disease has only increased since our affluent society has taken to eating refined carbohydrates. It is true that butter and margarine are concentrated fats and so is suet in meat, but the tongue

and appetite are evolved to cope with the eating of fats, and thus no over-consumption occurs. So butter and margarine with bread can be safely eaten. In any case the rise in fat-consumption per head over 70 years in the USA is only 12 per cent. They point to the fact that coronary disease is rare indeed among tribal Zulus and among rural Bantu in general, who eat unrefined carbohydrates. Diseases like kwashiorkor among Africans are due to an unbalanced diet and not due to lack of adaptation to the grain consumed, that is, it is a deficiency disease.

The authors demonstrate that the main cause of diabetes is in the eating of refined carbohydrates, which places an intolerable strain on the pancreas. In both World Wars, when sugar was scarce and refined flour was replaced with wholemeal flour and potatoes, there was a sharp decrease in diabetes, and tooth decay as well. The damage to the pancreas is caused in two ways: A. By the over-consumption of refined carbohydrates, due to the deception of the taste buds in the tongue, and appetite control. It is not so much the total work the pancreas is called upon to do, but the rate at which it has to work. When potatoes are eaten, the conversion of starch into sugar and the absorption of this into the bloodstream proceeds over several hours at a normal rate and not the violent one that follows on eating sweets or taking concentrated sugar in fizzy drinks or any other form. This is proved by the rarity of diabetes in Asia where unrefined carbohydrates are eaten. However, there is a relatively high incidence of diabetes in Madras where refined milled rice is eaten, compared with the home-pounded rice eaten elsewhere. Madras also has a higher incidence of gastric and duodenal ulcers. India is fortunate in that the consumption of sugar in India is only about 12 lbs per head per year compared with 120 lbs in affluent Western countries. The sugar consumption of Indians in Natal is 9 times higher than in India, and the incidence of diabetes, and obesity, is correspondingly higher.

The incidence of obesity among urban Zulus is common, as it is among the Whites, as they eat the same refined carbohydrates, whereas its incidence among rural Zulus is relatively low, as they subsist on unrefined carbohydrates.

Honey should be eaten in moderation as stated in Proverbs 25, verse 16, which says: "Hast thou found honey? Eat so much as is sufficient for thee" and in verse 27 "It is not good to eat much honey". This also applies to dates, in which the percentage of sugar is 64 per cent, compared with 20 per cent in bananas or 10 per cent in apples. Beer, although it does not taste sweet, contains too much malt sugar, and potatoes should be eaten with their skins on.

Tooth decay and pyorrhoea were for a million years virtually absent from ancient man, as they still are today in a few surviving primitive races and in wild animals. The authors show that it is the consumption of refined carbohydrates which cause dental decay, and question the use of fluoridation to prevent tooth decay, when there is no argument whatever of its uselessness in preventing pyorrhoea, when both these diseases can be prevented simply by avoiding refined carbohydrates. And I would personally add, if you have any doubt of this, then supplement your child's diet (and your own) by giving him two tablets per meal of brewers yeast. Make sure that you are sold genuine Brewers Yeast, and not simply Yeast with some forms of Vitamin B Complex added, as genuine Brewers Yeast contains all the Vitamin B complex, plus most amino acids, plus many minerals in their natural form.

The authors cannot agree with present day medical opinion that the imperfect construction of the human body is the cause of varicose veins and haemorrhoids, from which about 5-million people in Britain and 15 million people in the USA suffer. They are rarely due to heredity, and these diseases are rarely seen in tribal Negroes in Africa, whereas the incidence of these diseases among the Negroes in the USA is as high as among the Whites. Here again it is the eating of refined carbohydrates which is to blame.

The authors show clearly that gastric and duodenal ulcers are caused by protein stripping of carbohydrates. The protein in unrefined foods serves as a buffer to protect the stomach lining, as the hydrochloric acid and pepsin are used up in digesting the protein and thus do not damage

the mucous membranes of the stomach. Another cause is that refined carbohydrates are not sufficiently chewed and are swallowed before they have been impregnated with buffering alkaline saliva. In primitive societies where unrefined foods are eaten gastric and duodenal ulcers are almost unknown, but their incidence is high in our affluent Western societies.

Dramatic proof of the inefficiency of our modern diet was furnished by the German army in World War 2. At the out-break of war in 1939 duodenal ulcers were so common in the German army that actual "ulcer battalions" were formed, to enable the sufferers to have special food. German medical authorities were astonished to find that gastric and duodenal ulcers become rare diseases, especially in the front line in Russia where German troops were exposed to every kind of stress such as anxiety, cold, fatigue, ultra-course foods and dificiency of animal proteins. Yet the explanation is simple: being 1250 miles from home, front line troops were forced to live off the land and to eat whatever local produce they could lay their hands on. At first they were able to use stocks of grain left behind by the Russians which were consumed in their crudest state, but later the only local food available was that left growing in the fields, and this consisted mainly of turnips and potatoes. These were eaten largely uncooked. The absence of ulcers was as much a surprise to the ulcer sufferers as it was to their medical officers. German soldiers in Russian prisoner of war camps were likewise free of ulcers, because they continued to eat unrefined foods. What further proof is needed of the damage done to us by our refined carbohydrate foods?

In diseases of the bowel, we again find that these seldom exist in primitive communities living on unrefined carbohydrates in rural areas. But when these people move to our cities and consume our refined carbohydrates they acquire the same diseases so prevalent today in our affluent society. I will mention one disease in particular: appendicitus. The appendix is not a useless organ as is popularly supposed, but has the function of lubricating the bowel. If you eat the right food and keep your bowel functioning normally, you are unlikely to get appendicitus. Therefore, avoid refined carbohydrates, and reduce consumption of sugar to a minimum. Here I personally would advise avoidance also of gelatine desserts, red or green and so beloved of children, as these contain a high percentage of sugar, and their small content of gelatine is of little value.

The authors mention the frequency of eclampsia (acute toxemia during pregnancy due to failure of the kidneys) in the Indian residents of the Pacific island of Fiji due to the high proportion of refined carbohydrates in their diet, in contrast with the absence of eclampsia in the indigenous Fijans, whose diet consists mainly of unrefined carbohydrates. This is another proof of the damage done by refined carbohydrates.

This book concludes with an appendix, GUIDE for the PREVENTION AND ARREST OF ALL THE MANIFESTATIONS OF THE SACCHARINE DISEASE, which in less than 5 pages explains in very simple language what rules to follow in modifying your diet in our present affluent society in which processed and denatured foods predominate, from which so much that is essential to good digestion has been removed. It concludes with this observation: "Success will depend on realising that it is health, above all, that governs happiness, so that first things are put first and kept that way. People are prepared to take endless trouble over the maintenance of a motorcar, but over the maintenance of that infinitely more delicate mechanism, the human body, they are seldom prepared to take any trouble at all."

This is a mere condensation of the book DIABETES, CORONARY THROMBOSIS and the SACCHARINE DISEASE. I cannot possibly do justice to this book in such a short summary and urge readers to buy and study this book for themselves. It is very reasonably priced at R2.46, post free from Logan's University Bookshop, 622 Umbilo Road, Durban; or at 21s Sterling direct from the publishers John Wright & Sons, Ltd, Stonebridge Press, Bristol BS4 5NU, England.

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How To Cook A Husband

A good many husbands are utterly spoiled by mismanagement in cooking and so are not tender and good.

Some women keep them constantly in hot water; others let them freeze by their carelessness and indifference.

Some keep them in a stew with their irritating ways and words.

Some wives keep them pickled while others waste them shamefully.

It cannot be supposed that any husband will be tender and good when so managed, but they are really delicious when prepared properly.

In selecting a husband you should not be guided by the silvery appearance as in buying a mackerel nor by the golden tint as if you wanted salmon.

Do not go to the market for him as the best ones are always brought to the door.

Be sure to select him yourself as tastes differ.

It is far better to have none unless you will patiently learn how to cook him.

Of course a preserving kettle of the finest porcelain is best, but if you have nothing better than an earthenware pipkin it will do, with care.

Like crabs and lobsters, husbands are cooked alive. They sometimes fly out of the kettle and so become burned and crusty on the edges so it is wise to secure him in the kettle with a silken cord called 'comfort', as the one called 'duty' is apt to be weak.

Make a clear steady flame of love, warmth and cheerfulness. Set him as near this as seems to agree with him.

If he sputters do not be anxious, for some husbands do this until they are quite done.

Add a little sugar in the form of what confectioners call kisses, but use no pepper or vinegar on any account.

Season to taste with spices, good humour and gaiety preferred, but seasoning must always be used with great discretion and caution.

Avoid sharpness in testing him for tenderness. Stir him gently lest he lie too flat and close to the kettle and become useless.

You cannot fail to know when he is done.

If so treated, you will find him very digestible, agreeing with you perfectly and he will keep as long as you choose unless you become careless and allow home fires to grow cold.

Thus prepared, he will serve you a lifetime of happiness.

Author Unknown

A Remedy For Irregularity

H. William Baum, N.D.
Natures Path

Constipation is a disease of civilisation. Wild men and wild animals do not suffer from this malady, which is perhaps responsible for more human misery and mental and moral disaster than any other single cause.

So much has been written on the subject and so many warnings have been voiced that the idea that one of the chief functions of the body is to defecate daily has become universal. And, so deeply rooted is this impression that millions of dollars are spent annually in the purchase of laxatives and cathartics.

The bowels are the sewerage pipes of the human body, and their functioning is effected and regulated by a combined muscular and nervous interaction. Anything affecting this interaction will have an affect on bowel function. Consequently, there are a thousand and one causes of constipation – and practically all of them are preventable or correctable.

As eighty per cent of all cases of constipation can be corrected by diet, it's logical to assume that this high percentage of cases results from improper foods or eating habits. As a matter of fact, there are many dietetic causes of constipation and dietetic errors that would cause this condition in one individual, but may not do so in another.

Devitalised foods and demineralised foods are without doubt one of the chief causes of constipation. The processes involved in "refining" remove not only vital nourishment, but also elements which should be retained in order to maintain the normal process of body fluids and of the cells. These prepared foods form adhesive masses, free from lubricating and stimulating qualities.

The refined flours and starches are among the most seriously altered and constipating foods, since all the stimulating elements have been removed. This includes our white flours, our so-called graham flour, macaroni, spaghetti and noodles, and all of the white flour products.

Our super-refined sugars, whether they are made from cane or beets, come in the class of devitalised, demineralised foods. We are continually using increasing amounts of sugar and sugar products, and these are becoming more and more a source of intestinal disturbances, including stassis. Sugar irritates the mucous membranes and produces catarrhal inflammations. The constipating effect of an over-abundance of these foods is produced in still another way – by drawing so much of the intestinal fluid to them for their solution and absorption that the bowel contents are deprived of sufficient moisture to keep them soft and pliable.

Over-eating is also one of our most prominent causes of constipation. There is sad truth in the statement that thousands of people "dig their graves with their teeth".

The average diet consists of an excess of protein foods which, because of wrong combinations, undergo putrefaction with resulting irritation to the intestinal mucous membrane. Not only this, but the over use of proteins is bound to result in indigestion, and this will further delay the passage of the bowel contents. Putrefaction and its attendant fermentation will produce gas, causing dilation of the intestinal walls, especially of the colon. Impairment of the contractability of the bowel muscles will result from this.

The average person eats little or no fruit, with the possible exception of a few months in the summer. It is during the colder months when the diet is heavy and mainly of starches and proteins, that fruits are required more than at any other time of the year; yet they are used in still smaller amounts, if at all. Some people believe that fruits thin the blood and this effect is not to be desired when one must resist the cold. The fact is that blood circulates more rapidly when it is less viscid and concentrated. In every respect fruits improve not only the quality and circulation of the blood, but every function of the body, not the least of which is waste elimination.

With many other people the food itself may be well balanced with respect to elements, cellulose and digestible portions, but it is not sufficiently masticated. When this is the case, the food may produce sufficient irritation as to set up catarrhal inflammation or gastritis or dyspepsia.

Coarse foods in large amounts, foods poorly masticated, drugs, alcohol, spices, condiments, pickled foods, fried foods, smoked foods, and all other unnatural foods are some of the irritating substances which can give rise to constipation.

Water is a marked intestinal stimulant of which the average person consumes far too little. The tissues and cells of the body cannot function normally, they cannot absorb nourishment nor discard their waste, and they are not responsive to nerve stimuli, when they are denied through the blood a sufficient amount of diluting, dissolving water. All functions are reduced when the intake of water is low. But of greater direct effect, so far as bowel activity is concerned, is the fact that water helps maintain the faeces soft and plastic through the absorption of the fluid by the undigested cellulose.

Irregularity of meal hours is a cause of constipation in some cases. The body glands, organs and tissues accustom themselves to certain habits, and the organs of digestion are in the habit of supplying their secretions at stated hours. The nerve centres that control the various functions are also habituated to respond regularly to accustomed stimuli and are "keyed up" to respond to this anticipated incentive.

When this is not forthcoming or when it is supplied prematurely, the functions are either beyond their period of keenest response or this period has not yet arrived. When a meal is delayed a few hours, or advanced a few hours, the rhythmic movement of the intestines and colon are disturbed and constipation may follow.

Anyone who gives the least thought to the subject of digestion and of the process by which wastes are removed from the system, cannot but realise that constipation corrected by drugs is constipation perpetuated. One of the most frequent causes of a chronic constipation results from an acute or very mild case of constipation treated – and abused – with cathartics or laxatives. Remedies for dyspepsia and mild gastritis

also give rise to a similar condition because of the damage they do to the mucous membrane and secretory cells.

The people who are most affected by sedentary habits are those who eat too much and who neglect or postpone the calls of nature. Students and others who change from an active life to one of inactivity almost always have sluggish intestines.

Worry, fright, anger, grief and other depressing emotions, and physical or mental exhaustions, will sufficiently reduce the intestinal secretions so as to produce a delay in bowel action.

Authorities differ in their opinion as to the extent a torpid liver plays in the production of constipation; but almost all agree that at least fifty per cent of the cases of intestinal stassis are due to, or associated with, liver disorders, and some authorities claim as high as ninety per cent. An inactive liver results in a marked decrease in the amount of bile secreted and passed into the bowel.

The bile has several functions, among which are: a stimulant to peristalsis; an activator of intestinal secretions, thus helping to maintain normal moisture in the canal and helping in the emulsification of food fats; an intestinal antiseptic, thus preventing intestinal putrefaction with its many harmful effects upon bowel functions. It is one of the main stimulants to intestinal peristalsis and one of the most important agents of lubrication, and when absent or secreted in deficient amounts, the movements of the contents of the canal are certain to be greatly retarded. But the bile also has a very decided stimulating effect upon the pancreas and causes this most important digestive gland to secrete its fluid, with its various ferments, in adequate amounts. Without this normal amount, digestion of all food is delayed.

To summarise, simple wholesome, natural food, pure water, fresh air, sunshine, a reasonable amount of physical activity, relaxation and a happy optimistic attitude of mind are the factors upon which your health depends. Learn how to live, and health will be yours. That person is rich who has health and knows how to keep it. The same habits which help you to regain health help to maintain it.

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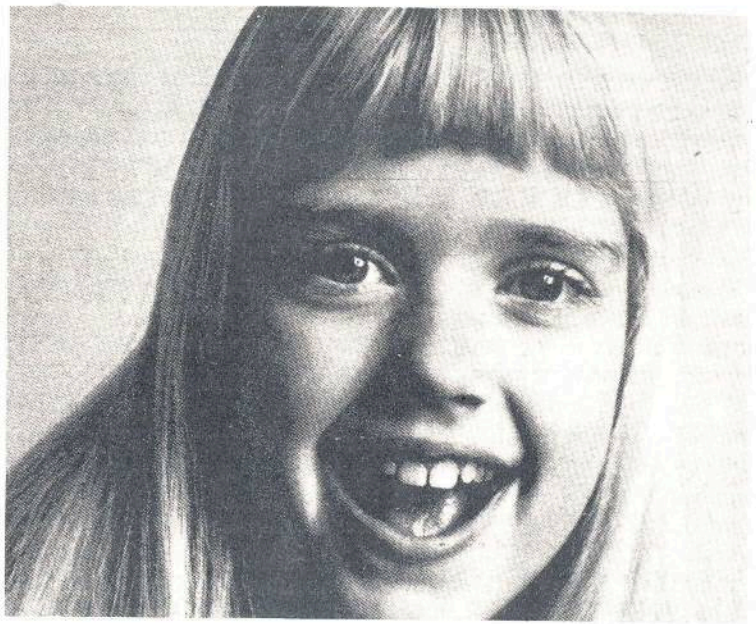
Fluoride Toxicity

By H.A. Cook, B.Sc. (Lond.), A.R.C.S., F.R.I.C., M.R.S.H.



Since the first announcements of Government intentions to promote the artificial fluoridation of water supplies, the arguments for and against fluoridation have been sufficient to fill several volumes. In spite of all this verbiage, the public has not been presented with the clinical facts of the effects of fluorine on the body, though their anxieties may have been lulled by the statement in the Ministry of Housing and Local Government Report No. 122, Great Britain, that the fluoridation of water at the level of 1 part per million is 'completely safe'. In the following article, Mr. H.A. Cook, a clinical practitioner and noted specialist

in the pathology of fluorine poisoning, describes in detail the toxicology of fluoride.

A recent symposium at the John Hopkins Hospital on trace elements was most definite in its declaration that fluorine has no essential function in animals or man, and that the element fluorine, in spite of its ubiquity, has never been found to have any essential function in any living organism, with the possible exception of certain plants which have been shown to convert it into the extremely poisonous fluoroacetate, which may act as a protection against predators of those plants. Some plants, such as the tea plant, can contain considerable amounts of the element in the form of fluoride, even several parts per million, with no apparent effect on the plant, although no known essential function of the plant is served, and the amount in the plant seems to relate directly to the amount in the soil. Other plants are severely damaged by even minute traces of fluorides, and the roots of these appear to act as a barrier to the soil fluoride.

In the animal and in man, fluoride is extremely poisonous, no minimum non-toxic quantity being known. A dose of 250 mg will invariably cause acute illness, needing urgent hospital treatment, while a dose of 2 to 4 gms can be expected to be fatal in a few hours.

The body has developed efficient means of eliminating the poisonous effects of fluoride, partly by elimination of the poisonous effects of fluoride, partly by elimination via the kidneys in the urine, and partly by combining it with the calcium of the blood and depositing the resulting very insoluble calcium fluoride in the bones (and teeth) in combination with calcium phosphate as the even more insoluble calcium fluorophosphate, fluoroapatite.

The blood contains approximately 0.15 ppm fluoride, roughly 9/10ths of which, 0.13 ppm, is bound or rendered harmless by the albumen of the blood, and only 1/10th, or about 0.01 ppm, remains in the form of ionised fluoride, at which level it is apparently harmless. Some fluoride may also be eliminated in the faeces as the insoluble calcium salt, and the magnesium of the body may be used in the same way as the calcium to eliminate fluoride.

A constant level of calcium in the blood and in the tissues is vitally necessary for the correct functioning of all tissues, and this constant

level is maintained by the dynamic exchange of calcium between the blood, which receives calcium from the diet, and the skeleton which acts as a solid reserve, while the excess calcium in the diet is eliminated as insoluble salts in the faeces. A similar effect applies to magnesium. Transfer of calcium from bone to blood and tissues is known as resorption. Both resorption and exchange of calcium (and magnesium) in bone is inhibited by fluoride. Many of the symptoms of fluoride poisoning are also symptoms of calcium or magnesium deprivation due to the removal of these minerals from the blood and tissue.

In the event of a deficiency of calcium, vitamin C or vitamin D, all of which are essential for the formation of the bones and teeth in which the fluoride is dumped, the body is no longer able to deal with the harmful chemical and fluorine poisoning ensues. Unfortunately, in this country at least, many people, particularly among the elderly, have diets deficient in these substances. The amount of fluoride which the skeleton can withstand without harm, is itself limited, the skeletal fluorosis that eventually results being itself really a form of chronic fluorine poisoning.

Absorbed fluoride has been shown by radio-active tracer studies to be very rapidly transferred to the bones where it is retained, but some is also taken up by tumours, infective lesions, and fibrous tissue, and there are limits to the amounts the kidneys can excrete without harm. The incorporation of even minute amounts of fluorine in tooth enamel can cause defects in the crystal structure, leading to weakness in that structure. This is confirmed by the production of the so-called mottling – actually enamel hypoplasia, consisting of embrittlement, pitting and erosion of the teeth, the first signs being chalky patches of striations – in approximately 10-15 percent of children drinking water fluorated at 1 ppm.

In high fluoride areas, such as in North Africa (0.5 – 4 ppm) this becomes the disease called 'darmous', in which the teeth fall out or wear out right down to the gums, a similar condition to the severe fluorosis produced in cattle in areas of high pollution of the herbage.

The production of dental or skeletal fluorosis has been shown to vary inversely with the hardness, i.e. calcium and magnesium content of the water, where this is the major source of fluoride. This means that hard water, high in calcium and magnesium, is less toxic than soft water which has less calcium and magnesium in it, for the same fluoride content. However, it is the total fluoride ingestion from all sources which counts, and not merely the concentration in the water supplies. Many cases of severe skeletal fluorosis have been shown to occur even where water supplies do not contain more than 1 ppm, and cases of fluorosis usually involve severe pains which may be diagnosed originally as rheumatism or as arthritis.

Increased thickening of the bones as the additional calcium is deposited leads gradually towards skeletal fluorosis, the earlier stages of which cannot be demonstrated by X-rays, but produce typically rheumatic pains. As the skeletal fluorosis develops, the joints become more painful and disabled, and the bones can then be seen by radiography to be over-calcified. The pelvis, hips and lower spine are the first affected, and this spreads to the whole of the spine, eventually producing the characteristic 'poker' back, a bent-over permanent stiffness of the spine. In some cases, areas of both over- and under-calcification may develop and increased dental decay may result.

The thickening of the vertebrae may cause compression of the spinal nerves and consequent neurological damage. The fluoride intake required to produce these results will also depend on the calcium and magnesium intake, but severe fluorosis with neurological complications has been produced in a case where the intake was only 10-15 cups of strong tea per day. I have recently measured the intake of a Dorset woman from tea-drinking alone at 9 ppm daily, and it is noteworthy that she has been suffering for many years from chronic arthritis, particularly affecting her pelvis, hips and lower spine. Such intakes from tea-drinking are not uncommon in this country.

It has been suggested that the increased deposition of calcium in bones due to fluoride intake is beneficial in cases of osteoporosis (under-calcification), but this has recently been shown to be completely untrue, the use of fluoride failing to normalise calcification, while it has been shown to cause areas of both over- and under-calcification due to its interference with resorption and exchange of calcium.

Delay of tooth eruption of about a year has been demonstrated, and this has been shown to be sufficient to account for most of the caries reduction attributed to water fluoridation.

Many essential enzyme systems in the body are inhibited by concen-

trations of fluoride of the order used for fluoridation, some such as lipase, esterases and phosphatases being inhibited by as little as .2 ppm. It is probable that the fluoride inhibits enzyme action by removing the metal that is necessary for the working of the enzyme. For example, the inhibition of the enzyme enolase which thus stops the essential process of glycolysis in the body, by which glucose is utilised to provide energy, was shown to be the removal of magnesium as fluorophosphate. Similarly the removal of magnesium by fluoride prevents cellular oxidation by inhibiting the enzyme cytochrome oxidase and the action of the phosphomono-esterases.

Functions of the body affected by the inhibition of enzymes in this way are the normal working of the muscles and cell membranes, which require calcium; carbohydrate metabolism which requires magnesium; bone formation which requires calcium and magnesium; protein metabolism which requires zinc; blood formation which requires copper, iron and cobalt; and reproduction which requires manganese. There is also evidence that prolonged fluoride ingestion can interfere with the normal enzyme-dependent functioning of the thyroid, parathyroid, parotid (salivary gland) and adrenal glands. Such interference with normal metabolic processes will not normally be noticeable until the intake of fluoride has continued for a long time.

It is claimed that the B vitamins, which are also essential for carbohydrate metabolism and many other processes in the body, and some essential amino acids, particularly those containing sulphur, are destroyed by even low concentrations of fluoride, and research work to test these claims is in progress.

Many cases of hypersensitivity or allergic reactions to even very small fluoride intakes have been confirmed, including reactions to fluoridated toothpastes (which contain from 4000 to 7600 ppm). Among these are urticaria, dermatitis, gastro-intestinal disturbances such as pain, sickness and diarrhoea, migraine-like headaches, mouth ulcers, nasal disturbances, irritation, conjunctival oedema, fatigue, weakness and excessive thirst.

Apart from its effects on the skeleton and allergic reactions, continuous intake leads towards chronic fluoride poisoning, marked by many symptoms, which are easily mistaken as due to other causes than fluoride intake. Effects on the central nervous system include headaches,

nerve deafness, optic neuritis, and damage to the retina of the eye, and cataracts, also gradual deterioration of mental alertness, with marked fatigue and weakness.

Effects on the mucous membranes produce mouth ulcers, excessive thirst and continuous 'running nose'; the lining membranes of deeper structures are also affected, producing inflammation of the stomach, small intestine and colon, with abdominal pains and diarrhoea; and inflammation of the lower urinary tract, with pain or irritation. Where the kidneys are affected, these may enlarge, and albumen pass from the blood into the urine. Stones containing very high amounts of fluoride, which has apparently aided their growth, have been found in kidneys, and the death of a patient dyalised on a kidney machine, due to the use of fluoridated water, has led to the total condemning of fluoride-containing water for dyalasis.

Effects on the neuromuscular system include muscular pains, frequently taken as rheumatic, abnormal sensations in arms, legs and feet, and disturbances of skin sensitivity, including numbness. As mentioned earlier, pains in the spine and joints are common and often attributed to arthritis.

Long term studies which have been carried out on a large number of mice showed a 9-10 percent reduction in life-span through drinking water with 1 ppm fluorine; and a further study on nearly 1 000 mice showed a 'statistically significant acceleration of tumour tissue growth' in cancer transplant experiments.

Studies on the relationship of mongoloid births to fluoride levels in the drinking water showed that where the water contained 1 – 2.6 ppm fluoride, mongol births were double the number where it contained 0.1 – 0.2 ppm, together with a higher fluoride content of mongol's teeth and higher incidence of dental fluorosis. Genetic changes in the fruit fly Drosophila which are produced by fluoride are similar to those causing mongolism in humans.

That ingested fluoride can be transmitted to the foetus can be demonstrated, and the death of a premature infant from fluorine poisoning in the USA led to the Federal Dental Association condemning fluoride-containing substances for pregnant mothers, and the subsequent cancellation of the opinion of the Department of Health in Britain that

pre-natal fluoride was necessary for tooth formation, although this cannot be avoided with fluoridation.

Apart from the monitoring under the Factory Acts of the effects of fluorides on people engaged in fluoride-producing or using industries, and the effects on people accidentally ingesting fluoride or absorbing hydrofluoric acid through the skin, there has been no investigation whatsoever into the incidence of skeletal fluorosis or fluoride poisoning in Britain, or even into the quantities of fluoride which people may ingest. In general, physicians are not aware of the symptoms of fluoride poisoning, which may readily be confused with other conditions, and only in the later stages of severe skeletal fluorosis is it readily distinguished by X-rays.

Investigations into fluorosis in cattle have been carried out in Britain by the Ministry of Agriculture and in legal cases in the USA, which have shown that there is a significant geographical distribution of airborne fluoride pollution and fallout, due to the gases and fumes emitted by certain industrial plants, particularly steel and aluminium producers, brickworks, ceramic kilns, collieries and power stations, but the effects on people have not yet been investigated.

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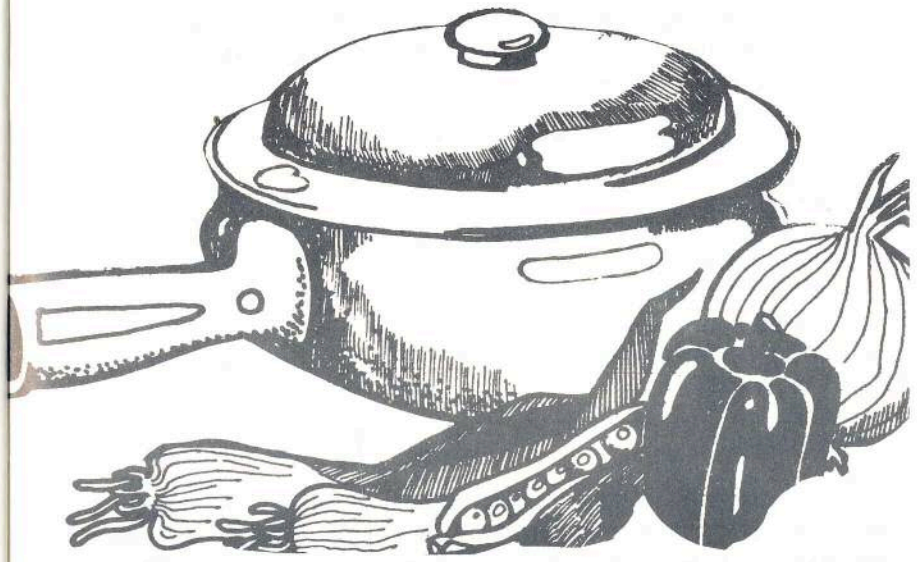
HANDY HINTS

QUICK SAUCE — For a quick chocolate sauce melt 4 oz. cooking chocolate in 6 oz. evaporated milk over a low heat. Nice with plain puddings or over ice-cream.

LIGHT PASTRY — When making puff or flaky pastry, lightly sprinkle the baking tray with water instead of greasing. It will change to steam and help the pastry to rise well.

SHABBY SHOES? — If children's shoes are shabby, rub over with a rag soaked in turpentine. This removes old polish and provides a good base for a build up of new moist polish.

Don't Be Cruel To A Vegetabuel .....



To preserve the true, delicate flavour of vegetables as well as their natural nutrients, and to enjoy green vegetables at their wholesome best, they should be:

a) Washed just before cooking.

b) Cooked just after picking.

c) Not overcooked.

d) Eaten just off the heat.

Carrots Without Water

3 tablespoons chopped onion
3 tablespoons butter
10 carrots scraped, sliced in long thin strips
half-teaspooon sugar
half-teaspoon salt
1 tablespoon chopped parsley
1-2 tablespoons cream

Sauté onion in butter until light brown. Add all the other ingredients and simmer gently for about 20 minutes until cooked. Add cream and let cook another 2-3 minutes. Serve hot.

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Sauté Cauliflower

1 cooked cauliflower
2 tablespoons butter
2 tablespoons oil
2 teaspoons grated onion
salt and pepper
nutmeg
chopped parsley

Break cauliflower in florets. Cook onion in butter and oil until light brown and remove from heat. Sauté cauliflower until well coated, add the onion, cover and cook for several minutes. Season well, sprinkle with chopped parsley and serve hot. Serves 4 to 5.

** ** ** **

Mashed Potato Muffins

2 cups mashed potatoes, well seasoned
2 eggs, separated
1 tablespoon chopped parsley

Preheat oven to 180 deg C and grease 10 muffin pans. Beat the egg yolks and parsley well and mix with the mashed potato. Cool slightly

then fold in the stiffly beaten egg whites. Shape mixture into balls and place in muffin tins. Bake until crisp and golden brown. Serve hot. Serves 4.

** ** ** **

Sauté Sweet Potatoes

4 large cooked sweet potatoes, diced
3 tablespoons melted butter
Grated rind of 1 small orange
half-cup brown sugar
2 tablespoons chopped parsley

Mix the butter, orange rind, sugar and parsley in a frying pan.

Shake the sweet potatoes in this mixture over quick heat until they are hot and golden brown. Serve immediately. Serves 4 to 5.

** ** ** **

Grilled Tomatoes

4 large firm tomatoes
1 teaspoon salt
half-teaspoon pepper
pinch sugar
6 tablespoons dried bread crumbs
4 tablespoons grated cheese
2 tablespoons grated onion
2 tablespoons butter

Preheat grill and grease a 1 litre ovenproof dish. Cut tomatoes into 1,2cm slices and place in the prepared dish. Season well and sprinkle a little sugar over them.

Mix the rest of the ingredients except the butter and cover the tomatoes. Dot with butter and grill for about 10 minutes until tender and brown. Serve hot. Serves 4.

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For Health and Understanding

Bran: Bran Tea for backward children, invalids and those suffering from disorders due to a deficiency of mineral salts.
Tea - Pour a pint of boiling water over 2 tablespoonsful of clean wheat bran. Boil for 15 minutes. Strain. Take a cupful when desired. May be flavoured with honey and/or lemon.
Poultice - Heated bran, wet or dry, forms an excellent poultice for painful muscles, spinal weakness and stiff joints. Apply in a muslin bag, as hot as can be borne with comfort.
Drink Bran water for Abdominal Trouble.

Brazil Nut: (Bertholletia Excelsa) (Myrtaceoe). Well known as dessert nut. In Brazil most of nuts used for extraction of an edible oil. Possibility of using Brazil nut flower, which is high in methionine has been suggested in child feeding programmes to prevent kwashiorkor in part of S. America.

Bread: Quick method. - 3 lbs 100 per cent wholemeal flour, 1 and a half pints tepid water or half water and milk, 1 oz yeast, 3 level teasp. salt, 1 teaspoon brown sugar.
Put the flour in a bowl, and slightly warm it, cream the yeast in a small basin with the sugar. Make a well in the centre of the flour and pour in the yeast, mixed with a little of the warm water, add the rest of the water and stir with a knife or wooden spoon until all is mixed in, finish off with the hand if liked. Divide into 3 portions, and mould for the 2 lb. size loaf tins previously greased with oil. Put to rise in a warm place with a clean teacloth over for 25 mins. or until half an inch from top of tin. Bake in a hot oven 45o deg. for three quarters of an hour.
Whole Wheat - 3 and a half lb. English stone-ground whole wheat flour, 2 pts. 4 oz. of water at blood heat, 1 oz. sea salt, Maldon salt or ordinary salt, 1 oz. sugar, preferably Barbados muscovado cane sugar, 1 oz. yeast (or up to 4 oz. for extra food value.)
The important points are:-
1. Warm the flour and baking tins,
2. Froth up the yeast separately,

3. Make the dough wet enough to be slippery,
4. Remember that whole wheat dough must not be kneaded and only requires a few minutes to mix.

Mix the salt with the flour in a large basin and warm it on the oven top or above a low gas flame so that the yeast will work quicker. Crumble yeast into a pudding basin, add sugar and a quarter pt. luke-warm water. Leave for 10 mins. to froth up, then stir to dissolve sugar. Pour this yeasty liquid into a basin of warm flour, add the rest of the warm water. Stir the whole with a wooden spoon until the flour is evenly wetted. The resulting dough should be wet enough to be slippery most bread is too dry. Grease 3 Two-pint tins and warm them well. Spoon the dough into the warmed tins, put them about 2 ft. above a low gas flame (or in the oven while the oven is warming up) cover with a cloth and leave for about 20 mins. to rise by about a third. Then bake them in a moderate oven (400 degrees F) for 45 mins. to an hour. An oven thermometer is useful, 400 degrees F. is about No. 5 in a Regulo oven. A word of warning. If the bread is not allowed to rise sufficiently before baking, the loaf will be close, if allowed to rise too high the load will be to spongy and does not keep moist so long. The right amount of rising can only be found with a little experience. Tapping the top crust with the knuckles will show by the sound when a loaf is properly baked. The right sound is soon learned. When baked, turn out the loaves to cool upside down on a tray or wire grid. If the loaves do not come out of the tins easily leave them to cool for 10 mins. Bread should be cooled as quickly as possible and is best kept 24 hours before eating. This bread will keep moist for 5 days as bread and can be used for another few days as toast. The addition of 2 oz. of margarine or butter to this recipe is suggested for an occasional change.
For good health use whole wheat bread only - avoid all white flour products, and processed foods.

Breakfast Cereal: Half cup milled almonds: Half cup milled wheat, barley or oats; Half chopped apple.

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