

The Hidden Hazards Of Microwave Cooking

by [Anthony Wayne and Lawrence Newell](#)

Is it possible that millions of people are ignorantly sacrificing their health in exchange for the convenience of microwave ovens? Why did the Soviet Union ban the use of microwave ovens in 1976? Who invented microwave ovens, and why? The answers to these questions may shock you into throwing your microwave oven in the trash.

Over 90% of American homes have microwave ovens used for meal preparation. Because microwave ovens are so convenient and energy efficient, as compared to conventional ovens, very few homes or restaurants are without them. In general, people believe that whatever a microwave oven does to foods cooked in it doesn't have any negative effect on either the food or them.

Of course, if microwave ovens were really harmful, our government would never allow them on the market, would they? Would they? Regardless of what has been "officially" released concerning microwave ovens, we have personally stopped using ours based on the research facts outlined in this article.

The purpose of this report is to show proof - evidence - that microwave cooking is not natural, nor healthy, and is far more dangerous to the human body than anyone could imagine.

However, the microwave oven manufacturers, Washington City politics, and plain old human nature are suppressing the facts and evidence. Because of this, people are continuing to microwave their food - in blissful ignorance - without knowing the effects and danger of doing so.

How do microwave ovens work?

Microwaves are a form of electromagnetic energy, like light waves or radio waves, and occupy a part of the electromagnetic spectrum of power, or energy. In our modern technological age, microwaves are used to relay long distance telephone signals, television programs, and computer information across the earth or to a satellite in space. But the microwave is most familiar to us as an energy source for cooking food.

Every microwave oven contains a magnetron, a tube in which electrons are affected by magnetic and electric fields in such a way as to produce micro wavelength radiation at about 2450 Mega Hertz (MHz) or 2.45 Giga Hertz (GHz). This microwave radiation interacts with the molecules in food.

All wave energy changes polarity from positive to negative with each cycle of the wave. In microwaves, these polarity changes happen millions of times every second. Food molecules - especially the molecules of water - have a positive and negative end in the same way a magnet has a north and a south polarity.

In commercial models, the oven has a power input of about 1000 watts of alternating current. As these microwaves generated from the magnetron bombard the food, they cause the polar molecules to rotate at the same frequency millions of times a second.

All this agitation creates molecular "friction", which heats up the food. This unusual type of heating also causes substantial damage to the surrounding molecules, often tearing them apart or forcefully deforming them.

By comparison, microwaves from the sun are based on principles of pulsed direct current (DC) that don't create frictional heat; microwave ovens use alternating current (AC) creating frictional heat.

A microwave oven produces a spiked wavelength of energy with all the power going into only one narrow frequency of the energy spectrum. Energy from the sun operates in a wide frequency spectrum.

Many terms are used in describing electromagnetic waves, such as wavelength, amplitude, cycle and frequency:

- Wavelength determines the type of radiation, i.e. radio, X-ray, ultraviolet, visible, infrared, etc.
- Amplitude determines the extent of movement measured from the starting point.
- Cycle determines the unit of frequency, such as cycles per second, Hertz, Hz, or cycles/second.
- Frequency determines the number of occurrences within a given time period (usually 1 second); The number of occurrences of a recurring process per unit of time, i.e. the number of repetitions of cycles per second.
- Radiation = spreading energy with electromagnetic waves

We've all been told that microwaving food is not the same as irradiating it (radiation "treatment"). The two processes are supposed to use completely different waves of energy and at different intensities.

No FDA or officially released government studies have proven current microwaving usage to be harmful, but we all know that the validity of studies can be - and are sometimes deliberately - limiting. Many of these studies are later proven to be inaccurate. As consumers, we're supposed to have a certain degree of common sense to use in judgment.

Take the example of eggs and how they were "proven" to be so harmful to our health in the late 1960's. This brought about imitation egg products and big profits for the manufacturers, while egg farms went broke.

Now, recent government sponsored studies are saying that eggs are not bad for us after all. So, whom should we believe and what criteria should we use to decide matters concerning our health?

Since it's currently published that microwaves - purportedly - don't leak into the environment, when properly used and with approved design, the decision lies with each consumer as to whether or not you choose to eat food heated by a microwave oven or even purchase one in the first place.

Motherly instincts are right

On a more humorous side, the "sixth sense" every mother has is impossible to argue with. Have you ever tried it? Children will never win against a mother's intuition. It's like trying to argue with the arm - appearing out of nowhere - that pinned you to the back of the seat when your mother slammed on the brakes.

Many of us come from a generation where mothers and grandmothers have distrusted the modern "inside out" cooking they claimed was "not suitable" for most foods. My mother refused to even try baking anything in a microwave.

She also didn't like the way a cup of coffee tasted when heated in a microwave oven. I have to fully agree and can't argue either fact. Her own common sense and instincts told her that there was no way microwave cooking could be natural nor make foods "taste they way they're supposed to".

Reluctantly, even my mother succumbed to re-heating leftovers in a microwave due to her work schedule before she retired.

Many others feel the same way, but they're considered an "old fashioned" minority dating back to before the 1970's when microwaves first overwhelmed the market.

Like most young adults at the time, as microwave ovens became commonplace, I chose to ignore my mother's intuitive wisdom and joined the majority who believed microwave cooking was far too convenient to ever believe anything could be wrong with it.

Chalk one up for mom's perception, because even though she didn't know the scientific, technical, or health reasons why, she just knew that microwave ovens were not good based on how foods tasted when they were cooked in them. She didn't like the way the texture of the microwaved food changed either.

Microwaves unsafe for baby's milk

A number of warnings have been made public, but have been barely noticed. For example, Young Families, the Minnesota Extension Service of the University of Minnesota, published the following in 1989:

"Although microwaves heat food quickly, they are not recommended for heating a baby's bottle. The bottle may seem cool to the touch, but the liquid inside may become extremely hot and could burn the baby's mouth and throat.

Also, the buildup of steam in a closed container, such as a baby bottle, could cause it to explode. Heating the bottle in a microwave can cause slight changes in the milk. In infant formulas, there may be a loss of some vitamins.

In expressed breast milk, some protective properties may be destroyed. Warming a bottle by holding it under tap water, or by setting it in a bowl of warm water, then testing it on your wrist before feeding may take a few minutes longer, but it is much safer."

Dr. Lita Lee of Hawaii reported in the December 9, 1989 Lancet:

"Microwaving baby formulas converted certain trans-amino acids into their synthetic cis-isomers. Synthetic isomers, whether cis-amino acids or trans-fatty acids, are not biologically active.

Further, one of the amino acids, L-proline, was converted to its d-isomer, which is known to be neurotoxic (poisonous to the nervous system) and nephrotoxic (poisonous to the kidneys). It's bad enough that many babies are not nursed, but now they are given fake milk (baby formula) made even more toxic via microwaving."

Microwaved blood kills patient

In 1991, there was a lawsuit in Oklahoma concerning the hospital use of a microwave oven to warm blood needed in a transfusion. The case involved a hip surgery patient, Norma Levitt, who died from a simple blood transfusion.

It seems the nurse had warmed the blood in a microwave oven. This tragedy makes it very apparent that there's much more to "heating" with microwaves than we've been led to believe. Blood for transfusions is routinely warmed, but not in microwave ovens. In the case of Mrs. Levitt, the microwaving altered the blood and it killed her.

It's very obvious that this form of microwave radiation "heating" does something to the substances it heats. It's also becoming quite apparent that people who process food in a microwave oven are also ingesting these "unknowns".

Because the body is electrochemical in nature, any force that disrupts or changes human electrochemical events will affect the physiology of the body. This is further described in Robert O. Becker's book, *The Body Electric*, and in Ellen Sugarman's book, *Warning, the Electricity Around You May Be Hazardous to Your Health*.

Scientific evidence and facts

In *Comparative Study of Food Prepared Conventionally and in the Microwave Oven*, published by Raum & Zelt in 1992, at 3(2): 43, it states

"A basic hypothesis of natural medicine states that the introduction into the human body of molecules and energies, to which it is not accustomed, is much more likely to cause harm than good.

Microwaved food contains both molecules and energies not present in food cooked in the way humans have been cooking food since the discovery of fire. Microwave energy from the sun and other stars is direct current based.

Artificially produced microwaves, including those in ovens, are produced from alternating current and force a billion or more polarity reversals per second in every food molecule they hit.

Production of unnatural molecules is inevitable. Naturally occurring amino acids have been observed to undergo isomeric changes (changes in shape morphing) as well as transformation into toxic forms, under the impact of microwaves produced in ovens.

One short-term study found significant and disturbing changes in the blood of individuals consuming microwaved milk and vegetables. Eight volunteers ate various combinations of the same foods cooked different ways.

All foods that were processed through the microwave ovens caused changes in the blood of the volunteers. Hemoglobin levels decreased and over all white cell levels and cholesterol levels increased. Lymphocytes decreased.

Luminescent (light-emitting) bacteria were employed to detect energetic changes in the blood. Significant increases were found in the luminescence of these bacteria when exposed to blood serum obtained after the consumption of microwaved food."

The Swiss clinical study

Dr. Hans Ulrich Hertel, who is now retired, worked as a food scientist for many years with one of the major Swiss food companies that do business on a global scale. A few years ago, he was fired from his job for questioning certain processing procedures that denatured the food.

In 1991, he and a Lausanne University professor published a research paper indicating that food cooked in microwave ovens could pose a greater risk to health than food cooked by conventional means.

An article also appeared in issue 19 of the Journal Franz Weber in which it was stated that the consumption of food cooked in microwave ovens had cancerous effects on the blood. The research paper itself followed the article. On the cover of the magazine there was a picture of the Grim Reaper holding a microwave oven in one of his hands.

Dr. Hertel was the first scientist to conceive and carry out a quality clinical study on the effects microwaved nutrients have on the blood and physiology of the human body.

His small but well controlled study showed the degenerative force produced in microwave ovens and the food processed in them. The scientific conclusion showed that microwave cooking changed the nutrients in the food; and, changes took place in the participants' blood that could cause deterioration in the human system.

Hertel's scientific study was done along with Dr. Bernard H. Blanc of the Swiss Federal Institute of Technology and the University Institute for Biochemistry.

In intervals of two to five days, the volunteers in the study received one of the following food variants on an empty stomach: (1) raw milk; (2) the same milk conventionally cooked; (3) pasteurized milk; (4) the same raw milks cooked in a microwave oven; (5) raw vegetables from an organic farm; (6) the same vegetables cooked conventionally; (7) the same vegetables frozen and defrosted in a microwave oven; and (8) the same vegetables cooked in the microwave oven.

Once the volunteers were isolated, blood samples were taken from every volunteer immediately before eating. Then, blood samples were taken at defined intervals after eating from the above milk or vegetable preparations.

Significant changes were discovered in the blood samples from the intervals following the foods cooked in the microwave oven. These changes included a decrease in all hemoglobin and cholesterol values, especially the ratio of HDL (good cholesterol) and LDL (bad cholesterol) values.

Lymphocytes (white blood cells) showed a more distinct short-term decrease following the intake of microwaved food than after the intake of all the other variants. Each of these indicators pointed to degeneration.

Additionally, there was a highly significant association between the amount of microwave energy in the test foods and the luminous power of luminescent bacteria exposed to serum from test persons who ate that food.

This led Dr. Hertel to the conclusion that such technically derived energies may, indeed, be passed along to man inductively via eating microwaved food.

According to Dr. Hertel,

"Leukocytosis, which cannot be accounted for by normal daily deviations, is taken very seriously by hemotologists. Leukocytes are often signs of pathogenic effects on the living system, such as poisoning and cell damage.

The increase of leukocytes with the microwaved foods were more pronounced than with all the other variants. It appears that these marked increases were caused entirely by ingesting the microwaved substances.

This process is based on physical principles and has already been confirmed in the literature. The apparent additional energy exhibited by the luminescent bacteria was merely an extra confirmation.

There is extensive scientific literature concerning the hazardous effects of direct microwave radiation on living systems. It is astonishing, therefore, to realize how little effort has been taken to replace this detrimental technique of microwaves with technology more in accordance with nature.

Technically produced microwaves are based on the principle of alternating current. Atoms, molecules, and cells hit by this hard electromagnetic radiation are forced to reverse polarity 1-100 billion times a second.

There are no atoms, molecules or cells of any organic system able to withstand such a violent, destructive power for any extended period of time, not even in the low energy range of milliwatts.

Of all the natural substances - which are polar - the oxygen of water molecules reacts most sensitively. This is how microwave cooking heat is generated - friction from this violence in water molecules.

Structures of molecules are torn apart, molecules are forcefully deformed, called structural isomerism, and thus become impaired in quality. This is contrary to conventional heating of food where heat transfers convectionally from without to within.

Cooking by microwaves begins within the cells and molecules where water is present and where the energy is transformed into frictional heat.

In addition to the violent frictional heat effects, called thermic effects, there are also athermic effects which have hardly ever been taken into account. These athermic effects are not presently measurable, but they can also deform the structures of molecules and have qualitative consequences.

For example the weakening of cell membranes by microwaves is used in the field of gene altering technology. Because of the force involved, the cells are actually broken, thereby neutralizing the electrical potentials, the very life of the cells, between the outer and inner side of the cell membranes.

Impaired cells become easy prey for viruses, fungi and other microorganisms. The natural repair mechanisms are suppressed and cells are forced to adapt to a state of energy emergency - they switch from aerobic to anaerobic respiration. Instead of water and carbon dioxide, the cell poisons hydrogen peroxide and carbon monoxide are produced."

The same violent deformations that occur in our bodies, when we are directly exposed to radar or microwaves, also occur in the molecules of foods cooked in a microwave oven.

This radiation results in the destruction and deformation of food molecules. Microwaving also creates new compounds, called radiolytic compounds, which are unknown fusions not found in nature. Radiolytic compounds are created by molecular decomposition - decay - as a direct result of radiation.

Microwave oven manufacturers insist that microwaved and irradiated foods do not have any significantly higher radiolytic compounds than do broiled, baked or other conventionally cooked foods.

The scientific clinical evidence presented here has shown that this is simply a lie. In America, neither universities nor the federal government have conducted any tests concerning the effects on our bodies from eating microwaved foods. Isn't that a bit odd?

They're more concerned with studies on what happens if the door on a microwave oven doesn't close properly. Once again, common sense tells us that their attention should be centered on what happens to food cooked inside a microwave oven.

Since people ingest this altered food, shouldn't there be concern for how the same decayed molecules will affect our own human biological cell structure?

Industry's action to hide the truth

As soon as Doctors Hertel and Blanc published their results, the authorities reacted. A powerful trade organization, the Swiss Association of Dealers for Electro-apparatuses for Households and Industry, known as FEA, struck swiftly in 1992.

They forced the President of the Court of Seftigen, Canton of Bern, to issue a "gag order" against Drs. Hertel and Blanc. In March 1993, Dr. Hertel was convicted for "interfering with commerce" and prohibited from further publishing his results. However, Dr. Hertel stood his ground and fought this decision over the years.

Not long ago, this decision was reversed in a judgment delivered in Strasbourg, Austria, on August 25, 1998. The European Court of Human Rights held that there had been a violation of Hertel's rights in the 1993 decision.

The European Court of Human Rights also ruled that the "gag order" issued by the Swiss court in 1992 against Dr. Hertel, prohibiting him from declaring that microwave ovens are dangerous to human health, was contrary to the right to freedom of expression. In addition, Switzerland was ordered to pay Dr. Hertel compensation.

Carcinogens in microwaved food

In Dr. Lita Lee's book, Health Effects of Microwave Radiation - Microwave Ovens, and in the March and September 1991 issues of Earthletter, she stated that every microwave oven leaks electro-magnetic radiation, harms food, and converts substances cooked in it to dangerous organ-toxic and carcinogenic products.

Further research summarized in this article reveal that microwave ovens are far more harmful than previously imagined.

The following is a summary of the Russian investigations published by the Atlantis Raising Educational Center in Portland, Oregon. Carcinogens were formed in virtually all foods tested.

No test food was subjected to more microwaving than necessary to accomplish the purpose, i.e., cooking, thawing, or heating to insure sanitary ingestion. Here's a summary of some of the results:

- Microwaving prepared meats sufficiently to insure sanitary ingestion caused formation of d-Nitrosodienthanolamines, a well-known carcinogen.
Microwaving milk and cereal grains converted some of their amino acids into carcinogens.
Thawing frozen fruits converted their glucoside and galactoside containing fractions into carcinogenic substances.
Extremely short exposure of raw, cooked or frozen vegetables converted their plant alkaloids into carcinogens.
Carcinogenic free radicals were formed in microwaved plants, especially root vegetables.
Decrease in nutritional value
Russian researchers also reported a marked acceleration of structural degradation leading to a decreased food value of 60 to 90% in all foods tested. Among the changes observed were:
Decreased bio-availability of vitamin B complex, vitamin C, vitamin E, essential minerals and lipotropics factors in all food tested.
Various kinds of damaged to many plant substances, such as alkaloids, glucosides, galactosides and nitrilosides.
The degradation of nucleo-proteins in meats.

Microwave sickness is discovered

The Russians did research on thousands of workers who had been exposed to microwaves during the development of radar in the 1950's. Their research showed health problems so serious that the Russians set strict limits of 10 microwatts exposure for workers and one microwatt for civilians.

In Robert O. Becker's book, The Body Electric, he described Russian research on the health effects of microwave radiation, which they called "microwave sickness." On page 314, Becker states:

"It's [Microwave sickness] first signs are low blood pressure and slow pulse. The later and most common manifestations are chronic excitation of the sympathetic nervous system [stress syndrome] and high blood pressure.

This phase also often includes headache, dizziness, eye pain, sleeplessness, irritability, anxiety, stomach pain, nervous tension, inability to concentrate, hair loss, plus an increased incidence of appendicitis, cataracts, reproductive problems, and cancer.

The chronic symptoms are eventually succeeded by crisis of adrenal exhaustion and ischemic heart disease [the blockage of coronary arteries and heart attacks]."

According to Dr. Lee, changes are observed in the blood chemistries and the rates of certain diseases among consumers of microwaved foods. The symptoms above can easily be caused by the observations shown below. The following is a sample of these changes:

Lymphatic disorders were observed, leading to decreased ability to prevent certain types of cancers.

An increased rate of cancer cell formation was observed in the blood.

Increased rates of stomach and intestinal cancers were observed.

Higher rates of digestive disorders and a gradual breakdown of the systems of elimination were observed.

Microwave research conclusions

The following were the most significant German and Russian research operations facilities concerning the biological effects of microwaves:

The initial research conducted by the Germans during the Barbarossa military campaign, at the Humbolt-Universitat zu Berlin (1942-1943); and,

From 1957 and up to the present [until the end of the cold war], the Russian research operations were conducted at: the Institute of Radio Technology at Kinsk, Byelorussian Autonomous Region; and, at the Institute of Radio Technology at Rajasthan in the Rossiskaja Autonomous Region, both in the Union of the Soviet Socialist Republics.

In most cases, the foods used for research analysis were exposed to microwave propagation at an energy potential of 100 kilowatts/cm³/second, to the point considered acceptable for sanitary, normal ingestion. The effects noted by both German and Russian researchers is presented in three categories:

- Category I, Cancer-Causing Effects
- Category II, Nutritive Destruction of Foods
- Category III, Biological Effects of Exposure

CATEGORY I

CANCER-CAUSING EFFECTS

[The first two points of Category I are not readable from our report copy. The remainder of the report is intact.]

3. Creation of a "binding effect" to radioactivity in the atmosphere, thus causing a marked increase in the amount of alpha and beta particle saturation in foods;

4. Creation of cancer causing agents within protein hydrolysate compounds* in milk and cereal grains [*these are natural proteins that are split into unnatural fragments by the addition of water];

5. Alteration of elemental food-substances, causing disorders in the digestive system by unstable catabolism* of foods subjected to microwaves [*the metabolic breakdown process];

6. Due to chemical alterations within food substances, malfunctions were observed within the lymphatic systems [absorbent vessels], causing a degeneration of the immune potentials of the body to protect against certain forms of neoplastics [abnormal growths of tissue];
7. Ingestion of microwaved foods caused a higher percentage of cancerous cells within the blood serum [cytomas - cell tumors such as sarcoma];
8. Microwave emissions caused alteration in the catabolic [metabolic breakdown] behavior of glucoside [hydrolyzed dextrose] and galactoside [oxidized alcohol] elements within frozen fruits when thawed in this manner;
9. Microwave emission caused alteration of the catabolic [metabolic breakdown] behavior of plant alkaloids [organic nitrogen based elements] when raw, cooked, or frozen vegetables were exposed for even extremely short durations;
10. Cancer causing free radicals [highly reactive incomplete molecules] were formed within certain trace mineral molecular formations in plant substances, and in particular, raw root-vegetables; and,
11. In a statistically high percentage of persons, microwaved foods caused stomach and intestinal cancerous growths, as well as a general degeneration of peripheral cellular tissues, with a gradual breakdown of the function of the digestive and excretive systems.

CATEGORY II

DECREASE IN FOOD VALUE

Microwave exposure caused significant decreases in the nutritive value of all foods researched. The following are the most important findings:

1. A decrease in the bioavailability [capability of the body to utilize the nutriment] of B-complex vitamins, Vitamin C, Vitamin E, essential minerals and lipotropics in all foods;
2. A loss of 60-90% of the vital energy field content of all tested foods;
3. A reduction in the metabolic behavior and integration process capability of alkaloids [organic nitrogen based elements], glucosides and galactosides, and nitrilosides;
4. A destruction of the nutritive value of nucleoproteins in meats;
5. A marked acceleration of structural disintegration in all foods.

CATEGORY III

BIOLOGICAL EFFECTS OF EXPOSURE

Exposure to microwave emissions also had an unpredictably negative effect upon the general biological welfare of humans.

This was not discovered until the Russians experimented with highly sophisticated equipment and discovered that a human did not even need to ingest the material substance of the microwaved food substances: that even exposure to the energy-field itself was sufficient to cause such adverse side effects that the use of any such microwave apparatus was forbidden in 1976 by Soviet state law.

The following are the enumerated effects:

1. A breakdown of the human "life-energy field" in those who were exposed to microwave ovens while in operation, with side-effects to the human energy field of increasingly longer duration;
2. A degeneration of the cellular voltage parallels during the process of using the apparatus, especially in the blood and lymphatic areas;
3. A degeneration and destabilization of the external energy activated potentials of food utilization within the processes of human metabolism;
4. A degeneration and destabilization of internal cellular membrane potentials while transferring catabolic [metabolic breakdown] processes into the blood serum from the digestive process;
5. Degeneration and circuit breakdowns of electrical nerve impulses within the junction potentials of the cerebrum [the front portion of the brain where thought and higher functions reside];
6. A degeneration and breakdown of nerve electrical circuits and loss of energy field symmetry in the neuroplexuses [nerve centers] both in the front and the rear of the central and autonomic nervous systems;
7. Loss of balance and circuiting of the bioelectric strengths within the ascending reticular activating system [the system which controls the function of consciousness];
8. A long term cumulative loss of vital energies within humans, animals and plants that were located within a 500-meter radius of the operational equipment;
9. Long lasting residual effects of magnetic "deposits" were located throughout the nervous system and lymphatic system;
10. A destabilization and interruption in the production of hormones and maintenance of hormonal balance in males and females;
11. Markedly higher levels of brainwave disturbance in the alpha, theta, and delta wave signal patterns of persons exposed to microwave emission fields, and;
12. Because of this brainwave disturbance, negative psychological effects were noted, including loss of memory, loss of ability to concentrate, suppressed emotional threshold, deceleration of intellectual processes, and interruptive sleep episodes in a statistically higher percentage of individuals subjected to continual range emissive field effects of microwave apparatus, either in cooking apparatus or in transmission stations.

Forensic Research Conclusions

From the twenty-eight above enumerated indications, the use of microwave apparatus is definitely not advisable; and, with the decision of the Soviet government in 1976, present scientific opinion in many countries concerning the use of such apparatus is clearly in evidence.

Due to the problem of random magnetic residulation and binding within the biological systems of the body (Category III:9), which can ultimately effect the neurological systems, primarily the brain and neuroplexuses (nerve centers), long term depolarization of tissue neuroelectric circuits can result.

Because these effects can cause virtually irreversible damage to the neuroelectrical integrity of the various components of the nervous system (I. R. Luria, Novosibirsk 1975a), ingestion of microwaved foods is clearly contraindicated in all respects.

Their magnetic residual effect can render the psychoneural receptor components of the brain more subject to influence psychologically by artificially induced microwave radio frequency fields from transmission stations and TV relay-networks.

The theoretical possibility of psycho telemetric influence (the capability of affecting human behavior by transmitted radio signals at controlled frequencies) has been suggested by Soviet neuropsychological investigations at Uralyera and Novosibirsk (Luria and Perov, 1974a, 1975c, 1976a), which can cause involuntary subliminal psychological energy field compliance to operative microwave apparatus.

FORENSIC RESEARCH DOCUMENT

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TO61-7R10/10-77F05

RELEASE PRIORITY: CLASS I ROO1a

Ten Reasons to Throw out your Microwave Oven

From the conclusions of the Swiss, Russian and German scientific clinical studies, we can no longer ignore the microwave oven sitting in our kitchens. Based on this research, we will conclude this article with the following:

- 1). Continually eating food processed from a microwave oven causes long term - permanent - brain damage by "shorting out" electrical impulses in the brain [de-polarizing or de-magnetizing the brain tissue].
- 2). The human body cannot metabolize [break down] the unknown by-products created in microwaved food.
- 3). Male and female hormone production is shut down and/or altered by continually eating microwaved foods.
- 4). The effects of microwaved food by-products are residual [long term, permanent] within the human body.
- 5). Minerals, vitamins, and nutrients of all microwaved food is reduced or altered so that the human body gets little or no benefit, or the human body absorbs altered compounds that cannot be broken down.
- 6). The minerals in vegetables are altered into cancerous free radicals when cooked in microwave ovens.
- 7). Microwaved foods cause stomach and intestinal cancerous growths [tumors]. This may explain the rapidly increased rate of colon cancer in America.
- 8). The prolonged eating of microwaved foods causes cancerous cells to increase in human blood.
- 9). Continual ingestion of microwaved food causes immune system deficiencies through lymph gland and blood serum alterations.
- 10). Eating microwaved food causes loss of memory, concentration, emotional instability, and a decrease of intelligence.

Have you tossed out your microwave oven yet?

After you throw out your microwave you can use a toaster oven as a replacement. It works well for most and is nearly as quick.

The use of artificial microwave transmissions for subliminal psychological control, a.k.a. "brainwashing", has also been proven. We're attempting to obtain copies of the 1970's Russian research documents and results written by Drs. Luria and Perov specifying their clinical experiments in this area.

The Proven Dangers of Microwaves

Extracted from NEXUS Magazine, Volume 2, #25 (April-May '95). Originally printed from the April 1994 edition of Acres, USA.

Back in May of 1989, after Tom Valentine first moved to St Paul, Minnesota, he heard on the car radio a short announcement that bolted him upright in the driver's seat. The announcement was sponsored by Young Families, the Minnesota Extension Service of the University of Minnesota: "Although microwaves heat food quickly, they are not recommended for heating a baby's bottle," the announcement said.

he bottle may seem cool to the touch, but the liquid inside may become extremely hot and could burn the baby's mouth and throat. Also, the buildup of steam in a closed container such as a baby's bottle could cause it to explode. "Heating the bottle in a microwave can cause slight changes in the milk. In infant formulas, there may be a loss of some vitamins. In expressed breast milk, some protective properties may be destroyed."

The report went on. "Warming a bottle by holding it under tap water or by setting it in a bowl of warm water, then testing it on your wrist before feeding, may take a few minutes longer, but it is much safer." Valentine asked himself: If an established institution like the University of Minnesota can warn about the loss of particular nutrient qualities in microwaved baby formula or mother's milk, then somebody must know something about microwaving they are not telling everybody.

A LAW SUIT

In early 1991, word leaked out about a lawsuit in Oklahoma. A woman named Norma Levitt had hip surgery, only to be killed by a simple blood transfusion when a nurse "warmed the blood for the transfusion in a microwave oven"! Logic suggests that if heating or cooking is all there is to it, then it doesn't matter what mode of heating technology one uses. However, it is quite apparent that there is more to 'heating' with microwaves than we've been led to believe.

Blood for transfusions is routinely warmed-but not in microwave ovens! In the case of Mrs Levitt, the microwaving altered the blood and it killed her. Does it not therefore follow that this form of heating does, indeed, do 'something different' to the substances being heated? Is it not prudent to determine what that 'something different' might do? A funny thing happened on the way to the bank with all that microwave oven revenue: nobody thought about the obvious. Only 'health nuts' who are constantly aware of the value of quality nutrition discerned a problem with the widespread 'denaturing' of our food. Enter Hans Hertel.

HANS HERTEL

In the tiny town of Wattenwil, near Basel in Switzerland, there lives a scientist who is alarmed at the lack of purity and naturalness in the many pursuits of modern mankind. He worked as a food scientist for several years with one of the many major Swiss food companies that do business on a global scale. A few years ago, he was fired from his job for questioning procedures in processing food because they denatured it. "The world needs our help,"

Hans Hertel told Tom Valentine as they shared a fine meal at a resort hotel in Todtmoss, Germany. "We, the scientists, carry the main responsibility for the present unacceptable conditions. It is therefore our job to correct the situation and bring the remedy to the world. I am striving to bring man and techniques back into harmony with nature. We can have wonderful technologies without violating nature." Hans is an intense man, driven by personal knowledge of violations of nature by corporate man and his state-supported monopolies in science, technology and education.

At the same time, as the two talked, his intensity shattered into a warm smile and he spoke of the way things could be if mankind's immense talent were to work with nature and not against her. Hans Hertel is the first scientist to conceive of and carry out a quality study on the effects of microwaved nutrients on the blood and physiology of human beings. This small but well-controlled study pointed the firm finger at a degenerative force of microwave ovens and the food produced in them.

The conclusion was clear: microwave cooking changed the nutrients so that changes took place in the participants' blood; these were not healthy changes but were changes that could cause deterioration in the human systems. Working with

Bernard H. Blanc of the Swiss Federal Institute of Technology and the University Institute for Biochemistry, Hertel not only conceived of the study and carried it out, he was one of eight participants. "To control as many variables as possible, we selected eight individuals who were strict macrobiotic diet participants from the Macrobiotic Institute at Kientel, Switzerland," Hertel explained. "We were all housed in the same hotel environment for eight weeks. There was no smoking, no alcohol and no sex." One can readily see that this protocol makes sense.

After all, how could you tell about subtle changes in a human's blood from eating microwaved food if smoking, booze, junk food, pollution, pesticides, hormones, antibiotics and everything else in the common environment were also present? "We had one American, one Canadian and six Europeans in the group. I was the oldest at 64 years, the others were in their 20s and 30s," Hertel added.

Valentine published the results of this study in *Search for Health* in the Spring of 1992. But the follow-up information is available only in a later edition, and also in *Acres*, USA. In intervals of two to five days, the volunteers in the study received one of the food variants on an empty stomach. The food variants were:

- raw milk from a biofarm
- the same milk conventionally cooked
- pasteurized milk from Intermilk Berne
- the same raw milk cooked in a microwave oven
- raw vegetables from an organic farm
- the same vegetables cooked conventionally
- the same vegetables frozen and defrosted in the microwave oven
- and the same vegetables cooked in the microwave oven

The overall experiment had some of the earmarks of the Pottenger cat studies, except that now human beings were test objects, the experiment's time-frame was shorter, and a new heat form was tested. Once the volunteers were isolated at the resort hotel, the test began. Blood samples were taken from every volunteer immediately before eating.

Then blood samples were taken at defined intervals after eating from the above-numbered milk or vegetable preparations. Significant changes were discovered in the blood of the volunteers who consumed foods cooked in the microwave oven. These changes included a decrease in all hemoglobin values and cholesterol values, especially the HDL (good cholesterol) and LDL (bad cholesterol) values and ratio.

Lymphocytes (white blood cells) showed a more distinct short-term decrease following the intake of microwaved food than after the intake of all the other variants. Each of these indicators point in a direction away from robust health and toward degeneration. Additionally, there was a highly significant association between the amount of microwave energy in the test foods and the luminous power of luminescent bacteria exposed to serum from test persons who ate that food.

This led Hertel to the conclusion that such technically derived energies may, indeed, be passed along to man inductively via consumption of microwaved food. "This process is based on physical principles and has already been confirmed in the literature," Hertel explained. The apparent additional energy exhibited by the luminescent bacteria was merely extra confirmation.

"There is extensive scientific literature concerning the hazardous effects of direct microwave radiation on living systems," Hertel continued. "It is astonishing, therefore, to realise how little effort has been made to replace this detrimental technique of microwaves with technology more in accordance with nature. "Technically produced microwaves are based on the principle of alternating current.

Atoms, molecules and cells hit by this hard electromagnetic radiation are forced to reverse polarity 1 to 100 billion times a second. There are no atoms, molecules or cells of any organic system able to withstand such a violent, destructive power for any extended period of time, not even in the low energy range of milliwatts."Of all the natural substances-which are polar-the oxygen of water molecules reacts most sensitively. This is how microwave cooking heat is generated-friction from this violence in water molecules. Structures of molecules are torn apart, molecules are forcefully deformed (called structural isomerism) and thus become impaired in quality.

HEATING FOOD

"This is contrary to conventional heating of food, in which heat transfers convectionally from without to within. Cooking by microwaves begins within the cells and molecules where water is present and where the energy is transformed into frictional heat." The question naturally arises: What about microwaves from the sun? Aren't they harmful? Hertel responded: "The microwaves from the Sun are based on principles of pulsed direct current.

These rays create no frictional heat in organic substance." In addition to violent frictional heat effects (called thermic effects), there are also athermic effects which have hardly ever been taken into account, Hertel added. "These athermic effects are not presently measurable, but they can also deform the structures of molecules and have qualitative consequences.

For example, the weakening of cell membranes by microwaves is used in the field of gene altering technology. Because of the force involved, the cells are actually broken, thereby neutralizing the electrical potentials-the very life of the cells-between the outer and inner sides of the cell membranes. Impaired cells become easy prey for viruses, fungi and other micro-organisms.

The natural repair mechanisms are suppressed, and cells are forced to adapt to a state of energy emergency: they switch from aerobic to anaerobic respiration. Instead of water and carbon dioxide, hydrogen peroxide and carbon monoxide are produced." It has long been pointed out in the literature that any reversal of healthy cell processes may occur because of a number of reasons, and our cells then revert from a "robust oxidation" to an unhealthy "fermentation".

The same violent friction and athermic deformations that can occur in our bodies when we are subjected to radar or microwaves, happens to the molecules in the food cooked in a microwave oven. In fact, when anyone microwaves food, the oven exerts a power input of about 1,000 watts or more. This radiation results in destruction and deformation of molecules of food, and in the formation of new compounds (called radiolytic compounds) unknown to man and nature.

Today's established science and technology argues forcefully that microwaved food and irradiated foods do not have any significantly higher "radiolytic compounds" than do broiled, baked or other conventionally cooked foods-but microwaving does produce more of these critters. Curiously, neither established science nor our ever-protective government has conducted tests-on the blood of the eaters-of the effects of eating various kinds of cooked foods. Hertel and his group did test it, and the indication is clear that something is amiss and that larger studies should be funded.

The apparently toxic effects of microwave cooking is another in a long list of unnatural additives in our daily diets. However, the establishment has not taken kindly to this work. "The first drawing of blood samples took place on an empty stomach at 7.45 each morning," Hertel explained. "The second drawing of blood took place 15 minutes after the food intake. The third drawing was two hours later." >From each sample, 50 ml of blood was used for the chemistry and five millimetres for the hematology and the luminescence. The hematological examinations took place immediately after drawing the samples.

Erythrocytes, hemoglobin, mean hemoglobin concentration, mean hemoglobin content, leukocytes and lymphocytes were measured. The chemical analysis consisted of iron, total cholesterol, HDL cholesterol and LDL cholesterol. The results of erythrocyte, hemoglobin, hematocrit and leukocyte determinations were at the "lower limits of normal" in those tested following the eating of the microwaved samples. "These results show anaemic tendencies. The situation became even more pronounced during the second month of the study," Hertel added.

"And with those decreasing values, there was a corresponding increase of cholesterol values." Hertel admits that stress factors, from getting punctured for the blood samples so often each day, for example, cannot be ruled out, but the established baseline for each individual became the "zero values" marker, and only changes from the zero values were statistically determined. With only one round of test substances completed, the different effects between conventionally prepared food and microwaved food were marginal-although noticed as definite "tendencies".

As the test continued, the differences in the blood markers became "statistically significant". The changes are generally considered to be signs of stress on the body. For example, erythrocytes tended to increase after eating vegetables from the

microwave oven. Haemoglobin and both of the mean concentration and content haemoglobin markers also tended to decrease significantly after eating the microwaved substances.

LEUKOCYTOSIS

"Leukocytosis (an increase in white blood cells)," Hertel explained, "which cannot be accounted for by normal daily deviations such as following the intake of food, is taken seriously by haematologists. Leukocyte response is especially sensitive to stress. They are often signs of pathogenic effects on the living system, such as poisoning and cell damage. The increase of leukocytes with the microwaved foods was more pronounced than with all the other variants.

It appears that these marked increases were caused entirely by ingesting the microwaved substances." The cholesterol markers were very interesting, Hertel stressed: "Common scientific belief states that cholesterol values usually alter slowly over longer periods of time. In this study, the markers increased rapidly after the consumption of the microwaved vegetables. However, with milk, the cholesterol values remained the same and even decreased with the raw milk significantly."

Hertel believes his study tends to confirm newer scientific data that suggest cholesterol may rapidly increase in the blood secondary to acute stress. "Also," he added, "blood cholesterol levels are less influenced by cholesterol content of food than by stress factors. Such stress-causing factors can apparently consist of foods which contain virtually no cholesterol-the microwaved vegetables."

It is plain to see that this individually financed and conducted study has enough meat in it to make anyone with a modicum of common sense sit up and take notice. Food from the microwave oven caused abnormal changes, representing stress, to occur in the blood of all the test individuals. Biological individuality, a key variable that makes a mockery of many allegedly scientific studies, was well accounted for by the established baselines. So, how has the brilliant world of modern technology, medicine and 'protect the public' government reacted to this impressive effort?

A GAG ORDER

As soon as Hertel and Blanc announced their results, the hammer of authority slammed down on them. A powerful trade organization, the Swiss Association of Dealers for Electroapparatuses for Households and Industry, known simply as FEA, struck swiftly. They forced the President of the Court of Seftigen, Kanton Bern, to issue a 'gag order' against Hertel and Blanc.

The attack was so ferocious that Blanc quickly recanted his support-but it was too late. He had already put into writing his views on the validity of the studies where he concurred with the opinion that microwaved food caused the blood abnormalities. Hertel stood his ground, and today is steadfastly demanding his rights to a trial. Preliminary hearings on the matter have been appealed to higher courts, and it's quite obvious the powers that be do not want a 'show trial' to erupt on this issue. In March 1993, the court handed down this decision based upon the complaint of the FEA:"Consideration.

1. Request from the plaintiff (FEA) to prohibit the defendant (Dr Ing. Hans Hertel) from declaring that food prepared in the microwave oven shall be dangerous to health and lead to changes in the blood of consumers, giving reference to pathologic troubles as also indicative for the beginning of a cancerous process. The defendant shall be prohibited from repeating such a statement in publications and in public talks by punishment laid down in the law.

2. The jurisdiction of the judge is given according to law.

3. The active legitimacy of the plaintiff is given according to the law.

4. The passive legitimacy of the defendant is given by the fact that he is the author of the polemic [published study] in question, especially since the present new and revised law allows to exclude the necessity of a competitive situation, therefore delinquents may also be persons who are not co-competitors, but may damage the competing position of others by mere declarations.[Apparently, Swiss corporations have lobbied in a law that nails "delinquents" who disparage products and might do damage to commerce by such remarks. So far, the US Constitution still preserves freedom of the press.]

5. Considering the relevant situation it is referred to three publications: the public renunciation [sic] of the so-called co-author Professor Bernard Blanc, the expertise of Professor Teuber [expert witness from the FEA] about the above-mentioned publication, the opinion of the public health authorities with regard to the present stage of research with microwave ovens as well as to repeated statements from the side of the defendant about the danger of such ovens.

6. It is not considered of importance whether or not the polemic of the defendant meets the approval of the public, because all that is necessary is that a possibility exists that such a statement could find approval with people not being experts themselves. Also, advertising involving fear is not allowed and is always disqualified by the law. The necessity for a fast interference is in no case more advised than in the processes of competition. Basically, the defendant has the right to defend himself against such accusations. This right, however, in cases of pressing danger with regard to impairing the rights of the plaintiff when this is requested.

Conclusion

On grounds of this pending request of the plaintiff, the court arrives at the conclusion that because of special presuppositions as in this case, a definite disadvantage for the plaintiff does exist, which may not easily be repaired, and therefore must be considered to be of immediate danger. The case thus warrants the request of the plaintiff to be justified, even without hearing the defendant.

Also, because it is not known when the defendant will bring further statements into the public. The judge is also of the opinion that because the publications are made up to appear as scientific, and therefore especially reliable-looking, they may cause additional bad disadvantages. It must be added that there does obviously not exist a just reason for this publication because there is no public interest for pseudo-scientific unproved declarations. Finally, these ordered measures do not prove to be disproportionate.

he defendant is prohibited, under punishment of up to F5,000, or up to one year in prison, to declare that food prepared in microwave ovens is dangerous to health and leads to pathologic troubles as also indicative for the beginning of a cancerous process. The plaintiff pays the costs. (Signed) President of the Court of Seftigen Kraemer." If you cannot imagine this kind of decision coming from a court in the United States, you have not been paying attention to the advances of administrative law.

Hertel defied the court and has loudly demanded a fair hearing on the truth of his claims. The court has continued to delay, dodge, appeal and avoid any media-catching confrontation. As of this writing, Hans is still waiting for a hearing with media coverage-and he's still talking and publishing his findings. "They have not been able to intimidate me into silence, and I will not accept their conditions," Hertel declared.

"I have appeared at large seminars in Germany, and the study results have been well-received. Also, I think the authorities are aware that scientists at Ciba-Geigy [the world's largest pharmaceutical company, headquartered in Switzerland] have vowed to support me in court." As those powerful special interests in Switzerland who desire to sell microwave ovens by the millions continued to suppress open debate on this vital issue for modern civilisation, new microwave developments blossomed in the United States.

INFANT DANGER

In the journal *Pediatrics* (vol. 89, no. 4, April 1992), there appeared an article titled, "Effects of Microwave Radiation on Anti-infective Factors in Human Milk". Richard Quan, M.D. from Dallas, Texas, was the lead name of the study team. John A. Kerner, M.D., from Stanford University, was also on the research team, and he was quoted in a summary article on the research that appeared in the 25 April 1992 issue of *Science News*.

To get the full flavour of what may lie ahead for microwaving, here is that summary article: "Women who work outside the home can express and store breast milk for feedings when they are away. But parents and caregivers should be careful how they warm this milk. A new study shows that microwaving human milk-even at a low setting-can destroy some of its important disease-fighting capabilities. "Breast milk can be refrigerated safely for a few days or frozen for up to a month; however, studies have shown that heating the milk well above body temperature-37°ree;C-can break down not only its antibodies to infectious agents, but also its lysozymes or bacteria-digesting enzymes.

So, when paediatrician John A. Kerner, Jr, witnessed neonatal nurses routinely thawing or reheating breast milk with the microwave oven in their lounge, he became concerned. "In the April 1992 issue of Pediatrics (Part I), he and his Stanford University co-workers reported finding that unheated breast milk that was microwaved lost lysozyme activity, antibodies and fostered the growth of more potentially pathogenic bacteria.

Milk heated at a high setting (72 degree;C to 98 degree;C) lost 96 per cent of its immunoglobulin-A antibodies, agents that fend off invading microbes. "What really surprised him, Kerner said, was finding some loss of anti-infective properties in the milk microwaved at a low setting-and to a mean of just 33.5degree;C.

Adverse changes at such low temperatures suggest 'microwaving itself may in fact cause some injury to the milk above and beyond the heating'. "But Randall M. Goldblum of the University of Texas Medical Branch in Galveston disagrees, saying: 'I don't see any compelling evidence that the microwaves did any harm.

It was the heating.' Lysozyme and antibody degradation in the coolest samples may simply reflect the development of small hot spots-potentially 60°ree;C or above-during microwaving, noted Madeleine Sigman-Grant of Pennsylvania State University, University Park. And that's to be expected, she said, because microwave heating is inherently uneven and quite unpredictable when volumes less than four millilitres are involved, as was the case in the Kerner's study.

"Goldblum considers use of a microwave to thaw milk an especially bad idea, since it is likely to boil some of the milk before all has even liquefied. Stanford University Medical Center no longer microwaves breast milk, Kerner notes. And that's appropriate, Sigman-Grant believes, because of the small volumes of milk that hospitals typically serve newborns-especially premature infants."

CHASING A STORY

Journalist Tom Valentine, after chasing this story, found it interesting that 'scientists' have so many 'beliefs' to express rather than prove fact. Yet facts eventually snuff out credential-based conjecture. Researcher Quan, in a phone interview, said that he believed the results of research so far warranted further detailed study of the effects of microwave cooking on nutrients.

The summary sentence in an abstract of the research paper is very clear: "Microwaving appears to be contra-indicated at high temperatures, and questions regarding its safety exist even at low temperatures." The final statement of the study conclusion reads:"This preliminary study suggests that microwaving human milk could be detrimental. Further studies are needed to determine whether and how microwaving could safely be done."

Unfortunately, further studies are not scheduled at this time. If there are so many indications that the effects of microwaves on foods can degrade the foods far above the known breakdowns of standard cooking, is it not reasonable to conduct exhaustive studies on living, breathing human beings to determine if it's possible that eating microwaved foods continuously, as many people do, can be significantly detrimental to individual health? If you wanted to introduce a herbal supplement into the American mainstream and make any health claims for it, you would be subjected to exhaustive documentation and costly research.

Yet the microwave-oven industry had only to prove that the dangerous microwaves could, indeed, be contained within the oven and not escape into the surrounding area where the radiation could do damage to people. The industry must admit that some microwaves escape even in the best-made ovens. So far, not one thought has been given by the industry to the possibility that the nutrients could be so altered as to be deleterious to health.

Well, this makes sense in a land that encourages farmers to poison crops and soils with massive amounts of synthesised chemicals, and encourages food processors to use additives that enhance shelf-life of foods regardless of the potential for degrading the health of the consumer. How many hundreds of pounds of microwaved food per capita is consumed in America each year? Are we going to continue to take it from established authority, without question, on the premise that they know best?