

Q. *India uses about 30,000 tons of pesticides a year, more than 60% of it on food crops. How important is food safety to you? How do you know what foods are safe? And would you be willing to pay more for organically grown food?*

– **Anonymous, India 04/14/08**

Rated: ★★★★★ by 21 **Council Members**

A. 1 *From: NEERAJA NAVEEN, Council Member on Ask Agent*

Definitely this type of food is not safe for the health. The pesticides are used to grow faster and to get money. May be this is useful for some people. On the other hand it is affecting the other people. Their health is spoiling. But no body is looking in to this matter with their busy lives. May be the organic grown food has some high value. I would prefer to buy it. Because It will reduce my DOCTOR BILL surely.

The old people were very strong than us. This is because they used to eat the right food and I call it as original and nutritious food. One can compare himself with his elders.

Pesticides can cause health problems, such as birth defects, nerve damage, cancer, and other effects that might occur over a long period of time. and for adults it can cause obesity. Being overweight or obese increases the risk of developing heart disease, Type 2 diabetes, high blood pressure and osteoarthritis. However, these effects depend on how toxic the pesticide is and how much of it is consumed. Some pesticides also pose unique health risks to children.

It can be identified whether the food is grown with pesticides or not. Sometimes traces of pesticides can be left in food, or on the outside of food. These are called pesticide residues. There are strict limits on the levels of pesticide residues that are allowed to be in food.

Washing or peeling fruit and veg can remove some pesticide residues.

Whereas organic food has multi nutritional values against the pesticides grown food.

Diet plays an important role in health and disease. The foods we choose can help in the prevention of many illnesses, thus increasing the quality of life. In the local supermarket or health food store, there are more food choices than ever before. This can often lead to confusion in determining what food choices are the healthiest. More than ever before, many people are choosing organic foods over conventionally grown foods containing pesticides. Organic foods can include fruits, vegetables, grains, dairy foods, eggs and to some extent meats and poultry. However, these foods can be more expensive than "conventional" foods.

Organic foods are defined as those foods that are grown without the use of synthetic fertilizers or pesticides. Pesticides are chemical or control agents made to kill insects, weeds and fungal pests that damage crops. In large amounts these have been found to cause different illnesses including cancer. Organic foods do not necessarily mean toxin-free, as plants produce their own natural toxins and these can contaminate organic products. Also, farmers can use natural pesticides, such as sulfur, nicotine and copper, which can also be found on the foods. Organically raised animals are those raised with organic feed and kept free from growth hormones and antibiotics.

How to find the difference :

Studies show no significant flavor difference between organically grown and conventionally grown foods. Instead, taste differences appear to come from the food variety, its growing conditions, and its maturity and harvest time. Unlike the past, most of today's organic foods compare very favorably in appearance with conventionally grown foods.

HOW DO I KNOW THAT WHAT I BUY IS REALLY ORGANIC?

The National Organic Program ensures that the production, processing and certification of organic foods match a comprehensive standard. Large farming or processing operations must be certified. Even smaller, uncertified organic operations must abide by certain labeling standards. Some of the labeling terms are listed below:

"100% organic": No synthetic ingredients are allowed by law.

"Organic": At least 95% of ingredients are organically produced.

"Made with organic ingredients": At least 70% of ingredients are organic; the other 30% are from a list approved by the USDA.

"Free-range" or "free-roaming": Animals had an undetermined amount of daily

outdoor access. This label does not provide much information about the product.

"Natural" or "All Natural": Doesn't mean organic. No standard definition, except for meat or poultry products, which may not contain any artificial flavoring, colors, chemical preservatives, or synthetic ingredients. Claims aren't checked.

Rated: ★★★★★ by 18 Council Members

A. 2 *From: Bond 007 James, Registered Member on Ammas.com*

safe and nutritious food is one of the most important requirements in my daily life. health is wealth. to keep healthy I have to eat healthy diet. to get healthy and nutritious diet iam ready to pay major percentage in my earnings. Health and nutrition are as much dependant on the wholesomeness of food and its freedom from microbial and chemical contamination, as on its adequacy with respect to quantity and nutritive value.

Contaminated food –There is a wide range of potentially toxic agents causing food-borne diseases, and posing problems with respect to food safety. These include: bacteria and bacterial toxins; zoonotic parasites; fungi and fungal toxins; aquatic biotoxins; plant toxins; pesticide residues; heavy metals; veterinary drug residues; food adulterants; certain food additives; radionucleides; nitrates, nitrites and nitrosamines. Among these, microbiological contaminants are the most important in the Indian context

foodborne disease is any illness resulting from the consumption of food. Foodborne illness is commonly called food poisoning, even though the physiological effects of foodborne illness are not always caused by poisons (toxins). True food poisoning occurs when a person ingests a contaminating chemical or a natural toxin, while most cases of foodborne illness are caused by a variety of foodborne pathogenic bacteria, viruses, prions or parasites that contaminate food. The action of monitoring food to ensure that it will not cause foodborne illness is known as food safety.

In the olden days to grow crops every one used to depend on natural resources like waste water, plant and animal wastes and their related products

Chemical contaminants chemical contaminants in foods are also responsible for causing food-borne diseases and affecting the quality of food. Chemical contami-

nants may enter the food chain as naturally occurring toxicants or due to a deliberate use of certain chemicals.

now as the natural resources got down,people started using synthetic and artificial products.pesticides are most important in this category. Pesticides are double edged weapons.in one way they will give quick and plenty of yield.so that cultivating by using pesticides is really profitable.but in other way lot of health hazards reported by eating the foods

Cultivated with the help of pesticides.

However, in many cases the amount of pesticide people are likely to be exposed to is too small to pose a risk. To determine risk, one must consider both the toxicity or hazard of the pesticide and the likelihood of exposure. A low level of exposure to a very toxic pesticide may be no more dangerous than a high level of exposure to a relatively low toxicity pesticide. The health effects of pesticides depend on the type of pesticide. Some, such as the organophosphates and carbamates, affect the nervous system. Others may irritate the skin or eyes. Some pesticides may be carcinogens. Others may affect the hormone or endocrine system in the body.

Microbiological contaminants: Important micro-organisms causing food-borne diseases are Staphylococcus aureus, Bacillus cereus, Salmonella, Escherichia coli, Vibrio parahaemolyticus and Clostridium perfringens. Acute bacterial food poisoning due to contamination of food is quite common.

So we want to eat safe food

Safe food is the one which is free from any physical,chemical,biological,organic and inorganic toxins which cause harm to the body directly or indirectly.

It also should contain high nutritive values with required calories and in desired proportion of carbohydrates,fats,proteins,vitamins and minerals to lead healthy and disease free life.

If possible I want to use organic food provided that its readily available.

Organic food that are grown naturally by using naturally available plant and animal products, without the use of synthetic fertilizers or pesticides.

I cannot go daily to get this food from farmers,so I need help from government and business personnel to label the food for me.

In usa FDI playing very good role in identifying the type and nutritive values with their strict rules and regulations.

I want similar rules and control over food and its products to be established everywhere in the world,especially india.

In this modern world keeping healthy and fit become a major challenge in every ones lives.hereditary,genetic,stress,anxiety ,psychiatric and environmental related diseases prevalent in higher percentages every where.

In my opinion food and water born diseses can be preventable.

For this all organizations like WHO,UNICEF,FDA ,governments in world wide and every living human has to come forward to crop safe organic food.

Preserve,handle and cook safely also important before consuming food.

Hope the day will come when every one get safe and nutritious food world wide.

thank you

Rated: ★★★★★ by 19 Council Members

A. 3 *From: **Geetha Gopakumar**, Council Member on Ammas.com*

Food safety is a growing concern with the industrialisaiton and globalisation of food. Food related diseases have spread.

Food safety risks, as they relate to human health, arise from of a number of factors. These include (a) microbial pathogens - bacteria, viruses, parasites, fungi and their toxins pesticide residues (b) food additives, livestock drugs and growth hormones; (c)environmental toxins such as heavy metals such as lead and mercury (d) persistent organic pollutants (e.g. dioxins); and (e) zoonotic diseases. The health risks associated with these agents impact the whole food supply chain, starting from input supply to the farm to the consumer.

On a global scale, new diseases are emerging and more virulent forms of old diseases are growing as globalisation spreads factory farming and industrial processing and agriculture. Disease epidemics and food hazards are the outcome of food production methods based on hazardous inputs and processes. The Government has drafted a Food Safety and Standards Bill 2005 which has been prepared with the

intention to be contemporary, comprehensive, and ensure better consumer safety through food safety management systems and settling standards based on science and transparency as also meeting the dynamic requirements of international trade and Indian Food Trade and Industry. Clearly, the law has been designed to lubricate international trade and the expansion of the global agribusiness. Consumer health, nutrition, and food culture are not even mentioned as objectives of the integrated food law.

Industrial food systems produce food hazards and disease eg. Coco Coal and Pepsi coal. It is now known that most soft drinks contain an extremely toxic brew of chemicals which are now known to be very harmful to human health. Apart from pesticides, the chemicals which are deliberately added include large quantities of phosphoric Acid (added to give them ?bite?), caffeine (added to make them addictive), large quantities of sugar, ethylene glycol and Carbon Dioxide.

Food production technologies have undergone two generations of changes over the last few decades. The first shift in food production technologies was the introduction of chemicals in agriculture under the banner of the Green Revolution. The main consequence of the mustard oil ban and the ban on sale of edible oils in unpackaged forms is the destruction of our oilseed biodiversity and the diversity of our edible oils and food cultures. It is also a destruction of economic democracy and economic freedom to produce oils locally, according to locally available resources, and locally appropriate food culture.

There is need for pluralism to protect food livelihoods and diverse food cultures. Since different food systems need different levels of management for safety, it is totally inappropriate to lump together all kinds of food, hence there is need to formulate laws by classifying into several groups on the basis of manufacturing and processing. Organic, Chemical/industrial etc. A modern food law would recognize that our decentralized food economy enhances nutrition, safety, culture and livelihoods. We need laws to protect our diverse local food cultures from the disease causing homogenous, centralized industrial food culture of the west. Our biodiversity and cultural diversity of food have built robust localized food economies. Our skilled and knowledgeable food processes are the future of food.

We need stronger food safety laws, especially in the context of toxics in food and the introduction of GMOs in food crops. The Prevention of Food Adulteration Act needs to be strengthened, not substituted by the proposed law.

The ISO 22000 standard will provide a valid basis for regulatory bodies in assessing

compliance of systems with respect to operating conditions, processes and products with regulatory standards. In a country like India, where food safety standards are questionable, supplier certification status will gain due significance and certification to the auditable standard will become essential for preferred supplier status. Also with the current plethora of different standards worldwide, non-certification status of the organisation with the standard acceptable in a particular country poses to be a trade barrier. This single international auditable standard will be acceptable in any part of the world and facilitate exports from India. While companies already certified to the ISO 9001: 2000 and the HACCP standard will only require to upgrade their current systems those organisations which have a single or no certification status will have to implement the standard to be competitive both locally and worldwide.

Rated: ★★★★★ by 18 Council Members

A. 4 *From: **mrs.ram s**, Registered Member on [Ammas.com](#)*

hi,,,

a very very good question..

Pesticide residues are often found on produce, and fruits and vegetables are an important part of your child's diet.

Pesticides help make groceries more affordable by saving crops from damage. But research shows that pesticides contribute to a wide range of health problems, including cancer, lung disease, reproductive problems, and possibly disorders of the endocrine and immune systems.

Animal testing also indicates that pesticides can cause permanent changes in brain chemistry that may lead to behavioral disorders, learning disabilities, and even long-term damage of the brain and nervous system.

Pesticide exposure can affect your preschooler today as well as in the future. In fact, some of the effects may not become apparent until later in life.

for several reasons: Children tend to eat a limited number of foods, which can increase their exposure to specific pesticides. They also eat more food relative to their body weight than adults do.

Children may also absorb pesticides more easily. And because of their still-developing gastrointestinal tract, their bodies may be less capable of breaking them down.

Finally, pesticides can block the absorption of nutrients that are vital to healthy growth and development.

Keep in mind that foods aren't the only way your preschooler may come in contact with pesticides. Pesticides also make their way into drinking water. If you use pesticides in your home or yard, your child will also be exposed. He could even ingest pesticides after they're brought into your home on the soles of shoes if your child plays on the floor or eats something he's picked up off the floor, for example.

Pesticides can cross the placenta, which means that pregnant women need to take care to avoid contact. Aren't there regulations that protect my child from pesticides in foods?

In the United States, there are regulations that intend to do that. The Environmental Protection Agency (EPA) sets limits on the amount of pesticide that may be used on crops. The limit is based on how toxic the particular pesticide is, how much pesticide residue will remain on the crop, and how much of the crop a consumer is likely to eat.

Some consumer advocacy groups believe that limits on pesticides should be stricter to protect children.

Foods grown for processing don't need to be cosmetically appealing, so they normally aren't sprayed as much just before harvest. Also, when foods are processed, they're often peeled, washed, or heated, which removes many pesticide residues

In 1996, the Food Quality Protection Act tightened food safety laws by requiring that the residue levels of pesticides be safe for babies and children, taking into account children's special sensitivity to pesticides. Under certain circumstances, however in the case of economic hardship to the farmer, for example the EPA can authorize the use of pesticides that don't meet safety standards.

While federal regulations have been gradually eliminating the use of some of the most dangerous pesticides, more remain. In addition, tests have found that some produce contains high levels of pesticides that have long been banned in the United States but that are still in the soil. When farmers plant in contaminated soils, they often end up with contaminated produce.

The USDA's Pesticide Data Program tests foods for pesticide residues. According to the program's annual report, 73 percent of the fresh fruits and vegetables tested in 2005 and 61 percent of the processed fruits and vegetables showed detectable

pesticide residues. Low levels were found in some dairy products.

These simple steps can greatly cut the amount of pesticides your family consumes:

Peel fruits and vegetables, and remove the outer leaves of vegetables like lettuce and cabbage.

Scrub under running water all fruits and vegetables that you choose not to peel. A produce wash product may also help.

For foods that are more difficult to wash like strawberries, grapes, broccoli, lettuce, and spinach soak them briefly, then rinse them.

Choose produce that's free of mold, bruising, and decay. These are likely to harbor more pesticides.

Cut the animal fat. Some pesticides (and other environmental chemicals) are concentrated in the fat and skin of poultry, meat, and fish. Trim the fat off meat and take the skin off poultry.

Buy organic foods, especially when buying higher-risk items like fruits and vegetables (particularly the "Dirty Dozen," below) and foods that your child eats a lot of.

Look for locally grown produce. Fruits and vegetables that are grown far away require after-harvest pesticides and waxes to help them survive the long trip. And produce that has to travel is often picked before ripening, which reduces flavor as well as nutrients.

Purchase produce in season. While it seems like a treat to buy juicy red strawberries or tomatoes in the dead of winter, keep in mind that food grown out of season usually comes from another hemisphere. Again, this produce will be picked earlier and will probably contain more pesticides.

Serve a wide variety of foods, especially produce. A varied diet will limit repeated consumption of the same pesticide.

You might also keep the Environmental Working Group's "Dirty Dozen" in mind when purchasing and preparing produce. After 43,000 tests run by the U.S. Department of Agriculture and the FDA, these are the 12 fruits and vegetables that tested highest in levels of pesticides: peaches, strawberries, apples, spinach, nectarines,

celery, pears, cherries, potatoes, sweet bell peppers, lettuce, and imported grapes.

The foods that tested lowest in pesticide residues: onions, avocados, frozen corn, pineapples, mangoes, asparagus, frozen peas, kiwi, bananas, cabbage, broccoli, and papayas.

This doesn't mean that you need to ban apples from your shopping cart, but you may not want to rely on them to meet all of your preschooler's fruit needs. Introduce your child to a wide array of fruits, including low-residue fruits like kiwi and papaya. And when you do serve apples that aren't organic, make sure that you wash them especially well or peel them.

India readies food safety agency after pesticide concerns

India will establish a food safety agency by the end of the year that will set stricter standards and institute recall procedures in a country where many now fear their food is not fit to eat.

The findings prompted worries about wider food contamination and saw the Indian parliament pass a new overarching food safety law last year to create an agency along the lines of the US Food and Drug Administration.

the agency will set standards for pesticides, additives, supplements, organic food and hygiene for locally produced and imported food.

– Contaminated food –

India uses about 30,000 tons of pesticides a year, more than 60 percent of it on food crops.

Rated: ★★★★★ by 17 Council Members

A. 5 *From: Anu Babu, Council Member on Ammas.com*

Hi Anonymous,

Yes an apt question..Nowadays everything that we consume is mixed & we are not able to get a pure , hygenic food substance.

Food safety is a scientific discipline describing the handling, preparation, and storage of food in ways that prevent foodborne illness. This includes a number of routines that should be followed to avoid potentially severe health hazards. Food can trans-

mit disease from person to person as well as serve as a growth medium for bacteria that can cause food poisoning. In developed countries there are intricate standards for food preparation, whereas in lesser developed countries the main issue is simply the availability of adequate safe water, which is usually a critical item

What is Food borne illness ?

Bacteria that cause disease are called pathogens.

When certain pathogens enter the food supply,

they can cause foodborne illness. Millions of cases of foodborne illness occur each year. Most cases of foodborne illness can be prevented. Proper cooking or processing of food destroys bacteria.

Age and physical condition place some persons at

higher risk than others, no matter what type of bacteria is implicated. Very young children, pregnant women, the elderly and people with compromised immune systems are at

greatest risk from any pathogen. Some persons may become ill after ingesting only a few harmful bacteria; others may remain

symptom free after ingesting thousands.

How can I prevent foodborne illness?

There are four basic steps to follow:

Clean: Wash hands and surfaces often

Separate: Don't cross-contaminate

Cook: Cook to proper temperatures

Chill: Refrigerate promptly

How does food become hazardous?

Food becomes hazardous by contamination. Contamination is the unintended presence of harmful substances or microorganisms in food. Food can become contaminated from chemical, physical or biological sources.

Chemical hazards: Chemical hazards include substances such as cleaning solutions and sanitizers. non permitted adulterants, pesticide and heavy metal residues.

Physical hazards: Physical hazards are foreign particles, like glass/wood or metal/pieces, stone, bone fragments, feathers fibre, hair etc.

Biological hazards: Biological hazards come mainly from microorganisms.

Here are some of the steps that we can follow in day today life:

Keep your refrigerator at 4 C or less.A temperature of 4 C or less is important because it slows the growth of most bacteria. The fewer bacteria there are, the less likely you are to get sick from them.

Refrigerate cooked, perishable food as soon as possible but within two hours after cooking.

A temperature of 4 C or less is important because it slows the growth of most bacteria. The fewer bacteria there are, the less likely you are to get sick from them. Date leftovers so that they can be used within one day. If in doubt, throw it out!

Sanitize your kitchen dishcloths and sponges regularly. Wash with a solution of one teaspoon (5 ml) chlorine bleach to one litre of water, or use a commercial sanitizing agent, following product directions.

Wash your cutting board with soap and hot water after each use to prevent any subsequent contamination in food during preparation.

Never allow raw meat, poultry, and fish to come in contact with each other as they have generally high bacteria count including pathogens which cause food poisoning .Washing with only a damp cloth will not remove bacteria.

Periodically washing in a bleach solution is the best way to prevent bacteria from remaining on your cutting board.

Cook meats , seafood and poultry products thoroughly so as to ensure that cooked food is free from harmful bacteria.Cooking meat products on a low/medium flame such that the core temperature reaches at least 75 C usually protects against food-borne illness. Well-done meats reach that temperature.

Don't consume raw or lightly cooked eggs as they may contain the harmful Salmonella bacteria. Always cook the eggs thoroughly before eating them.

Clean kitchen counters and other surfaces that come in contact with food with hot water and detergent or a solution of bleach and water.

Bleach and commercial cleaning agents are best for getting rid of pathogens. Hot water and detergent are good, but may not kill all strains of bacteria.

Keep sponges and dishcloths clean because, when wet, these materials harbor bacteria and may encourage their growth.

When washing dishes by hand, its best to wash them with warm water and detergents all within two hours—before bacteria can begin to form.

Allow dishes and utensils to air-dry in order to eliminate re-contamination from hands or towels. Wash hands with soap and warm water immediately after handling raw meat, poultry, or seafood

Wash for at least 20 seconds before and after handling food, especially raw meat. If you have an infection or cut on your hands, wear rubber or plastic gloves.

Defrost frozen meat, poultry and fish products in the refrigerator, microwave oven, or cold water that is changed every 30 minutes.

Cook microwave-defrosted food immediately after thawing. Changing water every 30 minutes when thawing foods in cold water ensures that the food is kept cold, an important factor for slowing bacterial growth on the outside while inner areas are still thawing.

Some steps tht we can follow to get good food stuffs:

PURCHASING:

- * Purchase as far as possible perishables on a daily basis.
- * Procure processed food items only after checking properly the ‘Best Before date validity and prefer processed branded food items with product certification marks viz. ISI, FPO & AGMARK.
- * Procure milk and milk products, fish, seafood, poultry, meat and meat products, eggs and other perishables last when out on purchasing and keep packages of raw meat and meat products separate from other foods, particularly foods that will be eaten without further cooking. Consider using plastic bags to enclose individual packages of raw meat and meat products.

* Make sure milk and milk products, fish, seafood, poultry, meat and meat products, eggs and other perishables are refrigerated as soon as possible after purchase. Plan to drive directly home after purchases from the grocery store.

* Canned food items, if purchased, should be free of leaks, dents, cracks or bulging lids.

Here's How to Fight Bacteria!

*Separate raw meat, poultry and seafood from other foods in your grocery shopping bag and also in your refrigerator.

*if possible, use a different cutting board for raw vegetables and meat products.

*Always wash hands, cutting boards, dishes and utensils with hot water and cleaning agents come in contact with raw meat, poultry and seafood.

*Never place cooked food on a plate which previously held raw vegetables, meat, poultry and seafood.

Yes , ofcourse everybody will be ready to pay for good & hygenic food.

Rated: ★★★★★ by 17 Council Members

A. 6 *From: Dr. Sindu., Council Member on NDTV*

Along with sleep and breath food is the most important thing from where we get our life energy. Food is the most important necessity of our life. We should make it as pure as possible to have healthy living. Pesticides are substances that are used to kill or control pests. They are mainly used in farming to protect food crops. Sometimes traces of pesticides can be left in food, or on the outside of food. These are called pesticide residues. There are strict limits on the levels of pesticide residues that are allowed to be in food. Buy the vegetables and fruits, what we get from the market now a days does not strictly adhere to these standards. Washing or peeling fruit and veg can remove some pesticide residues. Even still small doses of pesticides and other chemicals can adversely affect people, especially during vulnerable periods of fetal development and childhood when exposures can have long lasting effects. Because the toxic effects of pesticides are worrisome, not well understood. Buying organic food promotes not only healthy living but farming practices that really are more sustainable and better for the environment less likely to degrade soil, impair ecosystems, foul drinking water, or poison farmworkers. Fruits and vegetables are

essential to a healthy diet, so you don't want to cut back on them. But you can cut back on pesticides. The best option is to choose organic whenever possible. If organic produce is not available, then select the least contaminated foods. Finally, though it only takes care of the outside and not what's on the inside, be sure to wash all produce. Not only organic foods are healthier but tastier as well. Organic milk's been proven to have 68 per cent more omega-3 fatty acids than normal milk. And there have been several studies linking pesticides to Parkinson's disease. Indeed, there are a number of significant benefits of eating organic food. One of the most significant health benefits associated with eating organic food rests in the fact that these products are free from any potentially harmful chemicals. Organically grown food items are pure and completely wholesome. It has been demonstrated that organically grown fruits and vegetables have significantly higher levels of antioxidants than do traditionally cultivated food products. Because organically grown fruits and vegetables are higher in antioxidants, these items have been demonstrated to work to reduce the risk of certain types of cancers. Antioxidants also have a restorative process when it comes to skin and muscle deterioration. Foods that are high in antioxidants help to slow and inhibit the deterioration of muscles and skin associated with the aging process. Overall, if a person is interested in making certain that he or she consumes foods on a regular basis that promote good health, he or she will want to turn to organic food products. Through the use of organic food, a person will not only obtain an optimal level of wellness, but he or she will be taking important steps towards preventing serious diseases such as cancer. So even if it is costly it definitely gives you more than what you actually pay.

Rated: ★★★★★ by 18 Council Members

A. 7 *From: Shikha D, Registered Member on Ammas.com*

Health and nutrition are as much dependant on the wholesomeness of food and its freedom from microbial and chemical contamination, as on its adequacy with respect to quantity and nutritive value. In our anxiety to overcome the problems of food shortage at the national level, and of under-nutrition at the family levels, we had accorded priority to programmes mainly aimed at augmenting food production; and had relegated programmes for ensuring wholesomeness of food to secondary importance.

This has been a short-sighted policy. It is often the poor, the under privileged and the undernourished who bear the brunt of the deleterious effects of food contamination. Illhealth and under-nutrition among them are often the end results of the twin

burdens of lack of adequacy and nutritive quality, on the one hand, and presence of food contamination, on the other. Ensuring the wholesomeness of food, in the present context, can possibly contribute nearly as much to the promotion of health and nutrition, as to ensuring its adequacy and nutritive value.

Food Contamination: The Present State

It must be confessed at the outset that there is a striking paucity of reliable data with regard to the extent and nature of food contamination – again reflecting the lack of attention and focus on this problem. The official statistics of the Government of India, for example, are notable for their poor documentation of food-borne diseases. The Indian Council of Medical Research (ICMR) has just concluded a major country-wide study, which should provide useful data. Piecing together such bits of information from available reports, we may draw some of the following conclusions.

There is a wide range of potentially toxic agents causing food-borne diseases, and posing problems with respect to food safety. These include: bacteria and bacterial toxins; zoonotic parasites; fungi and fungal toxins; aquatic biotoxins; plant toxins; pesticide residues; heavy metals; veterinary drug residues; food adulterants; certain food additives; radionucleides; nitrates, nitrites and nitrosamines. Among these, microbiological contaminants are the most important in the Indian context.

Microbiological contaminants

Important micro-organisms causing food-borne diseases are *Staphylococcus aureus*, *Bacillus cereus*, *Salmonella*, *Escherichia coli*, *Vibrio parahaemolyticus* and *Clostridium perfringens*. Acute bacterial food poisoning due to contamination of food is quite common. However, bacteriological confirmation of the diagnosis is lacking in most instances.

The diseases transmitted by food are commonly referred to in reports as food poisoning and characterised by abrupt onset of gastrointestinal disturbances – abdominal pain, vomiting and diarrhoea. Most cases go unreported, while a few occurring on a mass scale, are reported in newspapers. Scientific investigations are carried out in only a few selected instances. Food-borne diseases are not categorised separately in the health statistics of India. Outbreaks of food-borne diseases are recorded separately only when the patients are hospitalised, and that too in selected government hospitals. For example, in Hyderabad city, official statistics indicated that on an average only 28 cases of food-borne diseases per 100,000 population, occurred every year, clearly a gross underestimate. Most cases are unreported and unrecorded.

The most commonly involved foods are meat and meat products, poultry, eggs, milk and milk products, sweetmeats and rice preparations. Food handlers are a major contributing factor in the causation of food borne diseases.

Diseases caused by fungal contamination of foods, such as aflatoxic hepatitis, enteroergotism, trichothecene and mycotoxicoses, and diseases caused by phycotoxins have been reported from India.

Chemical contaminants

Besides microbiological contamination, chemical contaminants in foods are also responsible for causing food-borne diseases and affecting the quality of food. Chemical contaminants may enter the food chain as naturally occurring toxicants or due to a deliberate use of certain chemicals. Disease outbreaks in humans, such as lathyrism, epidemic dropsy, venoocclusive disease due to food-borne toxicants derived from higher plants have been described in India. Among the chemical contaminants, pesticide residues are the most important. Several outbreaks of diseases due to pesticides have been reported in India. Heavy metal contaminations of foods also pose a problem.

Food processing facilities

The processed food industry has grown considerably in India during the last decade. Processed foods include snack foods, dairy products, baked foods, confectionery, fruit and vegetable products, convenience foods, etc. Besides the quality of raw materials such as fruits, vegetables, meats, eggs, and flour. The quality of food additives and packaging materials such as paper, plastic, cardboard, cans, etc, are also important to maintain the quality of the end product.

Processed foods have a considerable export market and international buyers are particular about the quality of food. Usage of food additives is regulated by the Government and only permitted food additives are allowed to be used. The decision to allow particular food additives is generally based on their usage in developed countries or on the recommendations of the Joint Expert Committee on Food Additives (JECFA) of the FAO and WHO. While the quality of foods for export is generally ensured, arrangements for ensuring the safety and quality of food for Indian consumers within the country are currently highly inadequate.

for more information, please visit -

www.nutritionfoundationofindia.re

www.fao.org

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A. 8 From: **N .**, Registered Member on Ammas.com

I think the abnormally high use of pesticides is responsible for the low immunity levels and weak health in our generation.

Today we find very young children with graying hair, kids with weak eyesight and slow performance. Partly the food we are consuming is responsible for that. Some methods to minimise consumption of pesticides are:

Raw foods should be washed thoroughly before cooking and/or consumption. Washing in dilute vinegar solution, or solution of sodium bicarbonate, then rinsing with clean water will help to remove any chemical residues and also any soil or other foreign matter on the produce.

Many chemicals applied to crops to protect from insects and disease are sprayed onto external surfaces, so peeling outer layer or skin when preparing fresh fruit and vegetables will remove any surface residues.

Look out for the many of the quality assurance schemes, which guarantee chemical treatment of produce has strictly followed manufacturers recommendations and residues levels at point of harvest are either zero or very low. There are also an increasing number of retailers and growers offering organic produce, however, be aware that organic farming often uses some pest control substances, approved by the various associations established to promote this form of cultivation.

Do not consumer berries, leaves or other edible plant material picked from roadsides or other public areas, as these plants as it is not possible to know if these plants have been sprayed intentionally or unintentionally contaminated with pesticides or other substances and will not be subject to safety restrictions of designated food crops.

Rated: ★★★★★ by 19 Council Members

A. 9 From: **M Manju**, Registered Member on Ammas.com

Hello,

Actually I haven't have much exposure to this area before u asked this question..Thanks for you..

Now I studied a lot from your query..

Actually everybody needs to cook and serve a noncontaminated food..

But it is impossible in this situation..

I have a small place around my home in that i have tomato plant,and some vegies around it..

I use this for my small family but it is not sufficient for us..So we buy outside too..

I thought that organic foods are free from pesticide but today i learnt that they have also pesticide but minimal amount...

I am ready to give more money for my food safety but how to analyse a food is it pesticide free..???

It is big QUESTION..

There is some thing i got for this ques and i share this among u all

"When you can't buy organic foods, try to buy fruits and vegetables which are consistently low in pesticides.

Analysis of the latest government test results shows that the following fruits and vegetables have the least pesticide contamination among conventionally-grown foods."

Fruits

- 1) Pineapples
- 2) Plantains
- 3) Mangoes
- 4) Bananas
- 5) Watermelon
- 6) Plums

7) Kiwi Fruit

8) Blueberries

9) Papaya

10) Grapefruit

Vegetables

1) Avocado

2) Cauliflower

3) Brussels Sprouts

4) Asparagus

5) Radishes

6) Broccoli

7) Onions

8) Okra

9) Cabbage

10) Eggplant

Refer: www.healingdaily.com

FOOD HANDLING TIPS

While pesticide residues on and in food are typically at very low levels, there are ways you can further reduce them:

1. Rinse fresh fruit and vegetables thoroughly under running water. Running water has an abrasive effect that soaking does not have. Although some pesticides are absorbed into

fruits and vegetables, other residues (when present) are found on the surface. Washing

will remove most surface waxes and residues, along with dirt and bacterial contamination.

Peeling fruits and vegetables also removes surface residues. (But remember that some

nutrients and fiber may be lost in peeling.)

2. Don't use household soap to wash produce. Most soap is not meant to be consumed and

can cause intestinal upset.

3. Throw away the outer leaves of leafy vegetables like lettuce and cabbage. Cooking or

baking foods reduces some (but not all) pesticide residues.

4. Eat a variety of foods, from a variety of sources. This will give you a better mix of

nutrients and reduce your likelihood of exposure to a single pesticide.

Health professionals recommend that you eat at least five servings of fruits and vegetables

every day along with a variety of other foods.

www.cdpr.ca

Will Washing and Peeling Help?

Nearly all of the data used to create these lists already considers how people typically wash and prepare produce (for example, apples are washed before testing, bananas are peeled). While washing and rinsing fresh produce may reduce levels of some pesticides, it does not eliminate them. Peeling also reduces exposures, but valuable nutrients often go down the drain with the peel. The best option is to eat a varied diet, wash all produce, and choose organic when possible to reduce exposure to potentially harmful chemicals.

www.foodnews.org

Also this website has a list of fruits and veggies contains maximum amount of pesticides..

Rated: ★★☆☆ by 17 Council Members

A. 10 From: **B Sreekanth Reddy**, Registered Member on [Ammas.com](#)

A recent study conducted by Center for Science and Environment(CSE)in Punjab the showpiece of India's Green revolution has found that the cancer cases reported has increased 10 fold in the past 10 years.And an alarming levels of banned pesticides like exachlorocyclohexane,DDT in the patients blood samples.

The first report of deaths in India was in kerala where about 100 people died after taking contaminated wheat.Even though the use of pesticides in India is very low compared to other Asian countries,the contamination is widespread due to non-Judicious use.In India about half of food commodities produced are contaminated especially vegetables and fruits.The slow dose and long term intake of these poisons disrupt the hormone balance,damage our immune system,cause abnormalities in reproduction and dangerously increases the chances of cancer.Not only pesticides,but also unrestricted dumping of industrial wastes into rivers and other water resources and the use of Urea,potash etc. for increasing crop production are having a disastrous effect on the soil and groundwater.For example contamination of groundwater around Patencheru(Andhra Pradesh)one of the biggest industrial areas in Asia the breast milk of Humans leave alone cattle has turned to creamy yellowish a sign showing increased presence of heavy metals in the water consumed.

All this can be effectively tackled by creating awareness among farmers and general public and effective governance in using pesticides safely, taking the results of biotechnology to the reach of small farmers, increase the use of bio pesticides and pesticides obtained from natural plant sources such as Neem extracts.

Food safety is important not only to humans,but each and every living being on earth.

And the scenario is very tragic in developing and under developing countries.In our country where everything is sold in open market it is difficult for one to decide what food is safe.Expect for packed food or food that is sold in big retail shops where there is a mechanism giving the details of the food purchased a common man cannot distinguish between safe and contaminated eatables.Everyone who can afford to buy Organic farm foods should use them even paying a little higher so that the industry boost and one day the will be in the reach of poor people.As Everyone wants to have a clean meal but its not everyone's worth to buy Organic food where earning single meal a day is life and death play.

Rated: ★★★★★ by 17 Council Members

A. 11 *From: s. lakshmi, Registered Member on Ammas.com*

Hi ,

Food safety is a scientific discipline describing the handling, preparation, and storage of food in ways that prevent foodborne illness. This includes a number of routines that should be followed to avoid potentially severe health hazards. Food can transmit disease from person to person as well as serve as a growth medium for bacteria that can cause food poisoning. In developed countries there are intricate standards for food preparation, whereas in lesser developed countries the main issue is simply the availability of adequate safe water, which is usually a critical item.

Unfortunately many of you do not have access to organic foods. For those in many rural areas, it is simply not available, and for others cost is a problem. If you don't have access to organic vegetables, please do not use this as an excuse to not eat vegetables.

Non-organic vegetables are better than no vegetables at all. One of the many major benefits they provide is normalization of one's pH. That pH normalizing capacity is only slightly modified if the vegetables are non-organic.

There is also a practical option available to you for removing the pesticides from your body. A micro algae called chlorella binds very effectively to pesticides. It is also useful for helping you remove mercury from your body.

When you can't buy organic foods, try to buy fruits and vegetables which are consistently low in pesticides.

I am ready to buy organically grown food even though it costs more. Because I know about the use of organic food.

Rated: ★★★★★ by 19 Council Members

A. 12 *From: vaish reddy, Council Member on Ask Agent*

Hi,

Thanks for another nteresting and important topic to discuss.

Not only do whole communities become subject to the dangers of toxic agricultural chemicals, they seep into the food on which they are applied; and the foods grown for the general public become contaminated as well. In many places trees have stopped bearing fruit because the heavy use of pesticides has killed the pollinators the bees and butterflies.

To me personally I have been using organic food for sometime with whatever I get around me. Still, in India, organic food isn't legalised and till this is done, we have to put up with whatever is available.

Healthier - Organic foods have far less residues of pesticides, growth promoters and antibiotics. It has been shown in a number of studies that organic food contains more vitamins, nutrients and cancer-fighting antioxidants than non-organic food.

GMO free - Genetically Modified Organisms are not allowed in organic agriculture.

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More sustainable - Organic production aims, at all times towards sustainability while having best management of the environment and wildlife as a priority. This implies a sustainable management of natural resources; soil water and biodiversity. Organic systems are less dependent on non-renewable resources.

Traditions meeting Science - Organic systems rely on a modern and scientific understanding of ecology and soil science, while also integrating traditional agricultural knowledge.

Rated: ★★☆☆ by 17 Council Members

A. 13 From: **kjk jlkj**, Registered Member on Ammas.com

Hai,

Three important basic needs of a man are food, Cloth and shelter. Food is a must for every one. Every one is working hard for food. That food must be safe. We are not ready to pay and buy poisonous food. Pesticides even though protect the crop from pests, it also affects the soil. When the soil is washed away during rain it mixes with the river water and river water also gets affected.

Organic food is safe for every one.

The word "organic" refers to the way farmers grow and process agricultural products, such as fruits, vegetables, grains, dairy products and meat. Organic farming practices are designed to encourage soil and water conservation and reduce pollution. Farmers who grow organic produce and meat don't use conventional methods to fertilize, control weeds or prevent livestock disease. For example, rather than using chemical weedkillers, organic farmers conduct sophisticated crop rotations and spread mulch or manure to keep weeds at bay.

we are ready to pay for organic food.

Rated: ★★★★★ by 18 Council Members

A. 14 From: **Butter Fly**, Council Member on [Ammas.com](#)

Food safety occupies top rating in our daily living. With the increase in Pesticides for getting more production most of the farmers ingnornng the side effects that the food crops produced by them causing to the people. In most cases this type of foods are causing damage to human body by reducing the anti bodies and resistance power of human beings. This is the reason why diseaes are beong increased day by day. We the people can easily identify the foods grown by the pesticides, they are bigger than in size than the ordinarily grown food crops. But to the people living in cities have no option except buying these foods as organically produced food crops are available in little quantities. Though they are ready to buy the Organically food crops at any rate, the produce is very little than the quantity consumed. It is the media that should give propaganda and should tell people/farmers the essentiality of use of food crops.

Rated: ★★★★★ by 18 Council Members

A. 15 From: **Prabhu Kesavan**, Registered Member on [Ammas.com](#)

Food safety is very important to me but in the absence of regulations governing food safety in India, one cannot be sure how safe is the food that we eat. It is proven that these pesticides, which end up in our body, accumulate over a period of time in the tissues, leading to conditions like cancer, extreme stress etc., But in spite of the risks involved we do not have regulatory bodies to oversee food safety in India.

I am willing to pay more for organically grown food, if organic food production is legally regulated in India. But this seems to be a distant reality and until then, i

reckon we should learn to live with the risks associated with 'food safety'.

Rated: ★★★★★ by 17 Council Members

A. 16 *From: **shewi g**, Registered Member on [Ammas.com](#)*

With growing number o people suffering from food poisoning and digestive system diseases, Indians are becoming aware of the quality of food consumed by us. People are cautious about the present of pesticides and they make sure to wash the food properly before intake. Nowadays it is becoming a custom in many Indian families to consume organic food. Not just that, many of the international schools have made it compulsory to serve the students only organic food. People are switching over to so called "satvic" diet. This has led to an increase in the number of organic farmers who use the best of manures and seeds to grow vegetables and fruits which people are more than willing to buy, even at higher price. The proof is that inspite of large cost associated with it, people are able to do organic farming and maintain it. They earn profits because people are willing to pay for it.

Rated: ★★★★★ by 18 Council Members

A. 17 *From: **kelly Brent**, Registered Member on [Ask Agent](#)*

Im a chef and food safety is so important i cant stress it enough!

There are only 2 ways of knowing 100% that the food is safe and pesticide free, they are to either grow the food yourself or buy organic.

Organic of course does cost more but when your health and your families health is at stake its worth paying the extra.

Rated: ★★★★★ by 17 Council Members

A. 18 *From: **surjit singh**, Featured Member on [NDTV](#)*

The safety of food is the most important as you cannot build a healthy and sound nation on feeding disease prone food articles.It is high time that the society as well as the govt.agencies take it seriously.A lot of research and development is required to ensure cultivation of organically high yielding crops to solve the adulteraded food resulting from pesticides/insecticides.Since health is the primary concern,I am

willing to pay more for the organically grown food than eating infected food and spending on doctor's fee & treatment of disease.

Rated: ★★★★★ by 15 Council Members

A. 19 From: **EnjoyLife .**, Council Member on [Ammas.com](#)

Pesticides are a public health concern and have been linked to a range of diseases and disorders. Many chemical pesticides are known to cause poisoning, infertility and birth defects, they can damage the nervous system and potentially cause cancer. I will surely pay more for buying organically grown food.

Rated: ★★★★★ by 16 Council Members

A. 20 From: **Jeya Lakshmi**, Featured Member on [Ammas.com](#)

Hi ,

The terms food safety and food quality can sometimes be confusing. Food safety refers to all those hazards, whether chronic or acute, that may make food injurious to the health of the consumer. It is not negotiable. Quality includes all other attributes that influence a product's value to the consumer. This includes negative attributes such as spoilage, contamination with filth, discoloration, off-odours and positive attributes such as the origin, colour, flavour, texture and processing method of the food. This distinction between safety and quality has implications for public policy and influences the nature and content of the food control system most suited to meet predetermined national objectives.

Foods which are free from pesticide are safe.

If we get organically grown food free from pesticide I am ready to pay more for it.

Rated: ★★★★★ by 18 Council Members

A. 21 From: **Sandhya Karandikar**, Registered Member on [Ammas.com](#)

Though we cant do much about the pesticides being used, being aware of this is very important. If possible buy locally grown vegetables so that yu know how they were grown. As far as possible soak and wash the vegetables well before cutting. This will remove any surface residue of the pesticide but again soaking for a long time can make the vegetable loose some of its nutritional value.

Buying organic is the best. But here again it is hard to get and very expensive. If you can afford it go for it. But being aware and trying to make many people aware is very important. Create awareness and start small groups of people to take notice of such things. Tell school children about it.

Rated: ★★★★★ by 12 Council Members

A. 22 From: **hearts;Hiedi Suehearts;**, Registered Member on [Ammas.com](#)

I feel that food safety is extremely important. When I buy my fruits and vegetables I go to a market that I trust very much. It is the same place that my parents shopped when I was younger. I also buy fruit and veggie cleaner that you use on them before eating them. I guess it be worth it to spend a little bit more money on food that is organically grown.

Rated: ★★★★★ by 17 Council Members

A. 23 From: **Arathi** , Registered Member on [Ammas.com](#)

Hi there

India does use an inordinate amount of pesticides and has been accused of exporting a lot of toxic or contaminated food products to other parts of the world. But thankfully, something is being done about it. Read this link:

www.commodityonline.com

Hopefully this will mean something and have some effect. :)

Rated: ★★★★★ by 8 Council Members

A. 24 From: **Shaji Augustine**, Registered Member on [Ammas.com](#)

In today's modern world there is no food which is safer for the long run, it is becoming evident that everyone should turn out to be a farmer to make their own food products for a healthy living

Rated: ★★★★★ by 16 Council Members

A. 25 From: **Avinash P V**, Registered Member on [Ammas.com](#)

Dear friend now a days u will not get any assurance that this food is safe and that is not safe like this...ok

So what have that we have to eat... and have to try to control that only...

Rated: ★★★★★ by 16 Council Members

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