

### Eat Fresh Live Young

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#### RESEARCHER'S COLUMN ARTICLE

I have been working in Area of Food Science and Food Biotechnology for around more than two decades. On the basis of my experience in life as well as per understanding on subject, I would endorse that if the food that we eat is of good quality, we never need to see doctor very often, a thumb rule to eat good quality food is to eat freshly cooked, freshly harvested produce and those food items that have been fermented through natural process. In simple words the commercially processed food that includes mostly the food items that are produced on large scale e.g. industrial products having added chemicals other than the ingredients from natural sources comprise most of marketed items are not as good for health as freshly prepared food item in small quantities. Most of the processed marketed food items cause pre-mature aging e.g. young people look older than their actual age. I would like to avoid the details specially how it can work on genomic level as it would be beyond the focus of this article.

The most important ingredients of our diet are protein and fat. Meat is a good source of protein as well as provide fat to the body including good type of fat. Meat cuisine is added in the daily menu of rich people while poor do have them occasionally.

In the developed part of world where there is advance technology to process and preserve meat well as strict regulations to abide to ensure that high quality fresh meat of

healthy animal can reach to consumers, it is recommended not to wash the meat as it causes leaching of nutrients in addition it increases the risk of spreading the disease causing microorganisms along with supporting the growth of spoilage causing micro-organisms but this guideline does not stay valid for everywhere. For instance, in countries where there is higher rate of corruption whereas rules and regulations are not strictly followed adulteration of some other animal s meat while cutting the meat for customers is a common practice and it is often difficult to keep an eye on butchers as they are well skilled to deceive others without being noticed. More common practice is to add diseases or dead animals meat specially those who are suffering from virus diseases because they are difficult to diagnose mainly because of lacking the world class trained human resource required facilities and infra structure of institutes. At most of the places, it is not possible to screen the diseases, dead animals meat and toxin containing diet consuming animal meat or corruption leaves easy escape for butchers. Anyways whatsoever the reason is, I would like to share simple ways to screen out diseased dead animals, harmful meat and meat of different animals mixed together in a given portion for domestic cooking.

Always buy the intact portion of slaughtered animal and make sure that blood/red colour liquid is not dripping from hanged animal nor from chopped or any cut portion of meat. The deep tissues are bright red to pink but not dark red depending whether it is beef or mutton, age of animal and health status.

Having dark red deeper tissues of fresh meat or having patches of variation in colours within a cross section of meat portion indicate the animal slaughtered was diseased, was taking medicines including hormones or was slaughtered in unhygienic way with having compromised safety. However brownish or pale red meat particularly the deep tissues indicates that it can be a dead animal meat, carry toxin or some harmful chemical is present. It is advisable to discard such meat piece and inform the concerned authorities about it.

In case if meat is brought in cut piece form or chopped, then make portions each carrying meat in quantity required to cook at a time and pack it into small packets carrying in quality polythene bags specific for food and freeze the packed pieces till cooking. If the intact portions of meat are brought, cut them into required size after having evaluation done on set criteria mentioned as above and freeze them as described earlier. Around 3 - 4 hours ago before cooking take out the meat from polythene bag place it on sieve to thaw under refrigerated condition. In case if total volume of drip that comes out from meat on thawing is in volume more than 10 ml (around two table spoon) at maximum for 3/4 kg of meat (mutton/beef) then it is advisable to discard the meat. Before cooking wash the chopped/meat pieces with tap water and then dip into in deep pan filled with bottled water so that the water level is well above the meat pieces/chopped meat and hold it for a duration for around twenty (20) minutes in fridge, if the same size meat pieces are suspended in water at different heights then it indicates that decomposed meat (pale red/transparent or brown) whereas meat pieces having different shades of pink to red indicate meat from different animals but not dark red (animal having hormone, medicines/blood disease). Sieve the meat pieces or chopped meat in container comprising of narrow mesh size in case there are meat tissues having pale red-yellow/transparent/brown in colour it indicates the presence of dead animal meat portion (transparent or brown) particularly that has meat pieces treated with chemicals are present in the portion whereas (pale red-yellow) indicates animal was on harmful diet. However, if the colour of meat is bright red to pink taken from the same portion with having approximately same size but having different shades of it, lying at different level in suspending water present in the

utensil its very likely that meat from different animals have been mixed to sell the said portion. Wash the working place after processing meat with Bleach Solution mixed with water in quantity depending on the concentration of commercially available Bleach (usually 3 table spoon/Liter in case if the commercially available solution is standardized on international criteria).

It is advisable to discard the meat portion that does not fall on the said criteria as it is better to use other sources of protein e.g. pulses and beans rather than using harmful or poor-quality meat with having compromised safety. Though the above described method for meat screening applicable for domestic use involve nutrition loss but it is better to consume high quality meat that is safe as well than to have harmful or Haram food. For cooking meat and vegetable never use aluminum pan rather use steel or non-sticking pan with broad base with having cover made of same material and avoid pre-heating of the pan (empty heating of pan more than 50° C). Cooking in large broad base pans including the stainless pan or the earthenware pottery that is unpolished facilitates uniform cooking whereas food cooked in these pans those are covered as well during cooking is more tasty with having less loss of nutrients in comparison to meal cooked into standard steel pans.

These days even packed fresh milk is reported to be adulterated with harmful chemicals, very likely to re-dissolve the precipitated milk due to change in acidity that is the consequence of poor hygiene, presence of fecal material and disease causing micro-organisms or/and to improve the consistency/density/thickness of milk.

On opening the milk, the first thing to note is smell, in case if the smell is sour or bitter/pungent discard the milk straight away and report to concerned authorities.

However, to ensure the safety heat the milk in volume not more than a liter till it boils, sieve it through small mesh size tea strainer and store the milk in covered glass containers or in glass bottles having covered with metallic lids in volume not more than a liter refrigerated (use within a day) or keep frozen (use within 5 days) depends on duration of storage.

If the fresh packed milk is to be used in preparing tea then add milk directly in boiling water having added tea leaves stir it for 1.5 minutes after adding milk and then pour into cups directly passing through tea strainers having narrow mesh size. This method of tea preparation not only removes toxic material from milk but also from tea. However, I acknowledge that the above-mentioned methods of domestic food processing including the milk and tea preparation involve considerable amount of nutrition loss but on adopting above mentioned methods, meal and tea prepared would be safer to use and more delicious in taste.

Even the vegetables and fruits are being sprayed, injected in or plants are being watered with having hazardous compounds present in it and even those that are NOT permitted by international guidelines for Safety and User Well-being are added in concentration lethal for human use.

There is a simple way to screen such produces e.g. those that can tolerate refrigeration conditions, on keeping in fridge for 30 hours is left at room temperature preferably for 18 hours followed by holding in water for another 3 hours at same temperature. If the produce that was initially of good quality develops portions having watery bag, soften with having change or without change in colour and/or smell then it's very likely that produce carries hazardous compounds and hence it is important to inform the concerned authorities.

Similarly, those that stay in good quality on holding at room temperature and above with having no change in organoleptic properties can be evaluated for their safety by holding in water for 3 hours same as suggested earlier and study the change in characteristics on criteria described earlier. The findings can be verified by sending the sample to concerned authorities for evaluation.

Like Pakistan other agriculture countries can maintain self-dependent husbandry provided they manage to engineer their resources smartly without having any manipulation at molecular level other than those that can happen naturally as well e.g. excluding those leading to construction of Genetically Modified (GM) Crops rather support limited use of biotechnology, for achieving natural selection on-

ly, having live-stock raised in absence of supplemented diets with having feed obtained by produce grown on soils without furnished with tailored fertilizers, to feed Global Consumer Community with fresh meat milk dairy and sea food provided ALL follow safety guidelines, abide rules regulations within the limits defined by International Law having them translated in suitably applicable form with respect to prevailing situation and conditions for every region all over the GLOBE and above all get rid of corruption with having trained the concerned experts of world class standing in their specific area of expertise, selected on professional honesty and proficiency, ALL those having commitment to perform the duty at THE BEST.

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