Food Adulteration

- Food adulterants
- Health effects
- Adulterant detection tests
What is food adulteration?

Food adulteration is the act of intentionally debasing the quality of food offered for sale either by the admixture or substitution of inferior substances or by the removal of some valuable ingredient.
Food is declared adulterated if:

• a substance is added which depreciates or injuriously affects it
• cheaper or inferior substances are substituted wholly or in part
• any valuable or necessary constituent has been wholly or in part abstracted
• it is an imitation
• it is coloured or otherwise treated, to improve its appearance or if it contains any added substance injurious to health
Some common adulterants and the diseases caused by them

**Milk**: Cow/buffalo milk can be adulterated with starch, milk powder, and urea.

**Health effect**: Cancer or acute renal failure.
Tur dal, Turmeric powder, mixed spices, saffron

**Adulterants:** Metanil yellow, a non-permitted color is a common adulterant in food items like laddu, tur dal and turmeric.

**Health effect:**
tumor and cancer
**Ghee**

**Adulterants:** Ghee essence is used in vanaspati or cheaper oils and passed off as pure ghee. This type of ghee will not solidify like normal ghee. It may also not have that grainy texture of pure ghee.

**Health effect:**
Cancer or acute renal failure
Sugar, Salt

**Adulterants:** With chalk powder and white sand.

**Health effect**

Stomach disorder
Tea powder

**Adulterants**: With used tea leaves, dye or artificial colour, iron fillings.

**Health effect**
Cancer, tetanus
Chilli powder

**Adulterants**: Chilli powder: Sudan red, Red brick powder, grit, sand, dirt, non-permitted colors and sawdust.

**Health effect**: Stomach disorder, Sudan dye is carcinogenic
Sweets

Adulterants: Metanil yellow

Health effect: tumor and cancer
Mustard seeds and vegetable oil

Adulterants: Argemone seeds and argemone oil

Health effect: Epidemic dropsy
Honey

Adulterants: Jaggery, Sugar, corn syrup

Health effect: Obesity, Diabetes, Eyes and nerve damages
Few more common adulterants

- Asafoetida: Soap stone and other earthy matter is used for adulteration.

- Cumin seeds: Grass seeds are camouflaged and colored with charcoal dust.

- Turmeric: Lead chromate is used to give turmeric its natural color. It is very harmful. (Causes anemia, abortion, paralysis, brain damage)

- Coriander powder: With dung powder.

- Fruits: Arsenic sprayed (causes dizziness, chills, cramps, paralysis, death)
What can you do about this?
Well, that is your homework for the day. List it down.