

CAMPUS HEALTH COMMUNIQUE

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Department of Pharmacy

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CUMPULSORY LICENSING

Mr. Saswata Banerjee

Inside this issue:

Insulin	2
Resistance	
R _x or Rx	2
Garlic: Medicinal Value	3
Dandruff: Home Remedies	3
Allergic Asthma	4

Government may grant generic producers compulsory licenses on patent-protected medicines or process if the right-holders fail to supply the products at affordable prices and in sufficient quantities thereby allowing to produce without the consent of the patent owner. It is one of the flexibilities in the WTO's agreement on intellectual property-the TRIPS (Trade-Related Aspects of Intellectual Property Rights) Agreement. The generic copy/drug is produced only for the domestic market. The TRIPS agreement clearly states- "The patent holder shall be paid adequate remuneration in the circumstances of each case, taking into account the economic value of the authorization", but it does not define "adequate remuneration" or "economic value". For example Bayer acquired an importing license for "Nexavar"- the company's brand name for the drug Sorafenib tosylate (a drug for liver and kidney cancer) in 2007 and got a patent. The drug was exorbitantly priced and out of reach of most of the people," the patent authority wrote in its 62-page decision. "The product in question is not a luxury item but a lifesaving drug and it is highly important that a substantial part of the demand be met strictly". In its compulsory license request, Indian generic manufacturer "Natco" proposed selling Sorafenib tosylate at Rs. 8,800 per patient per month - approximately US \$175 - resulting in a 97 percent price cut compared to Nexavar. The compulsory license has been granted until 2020.



**STRESS IS YOUR
MOST VICIOUS
ENEMY**

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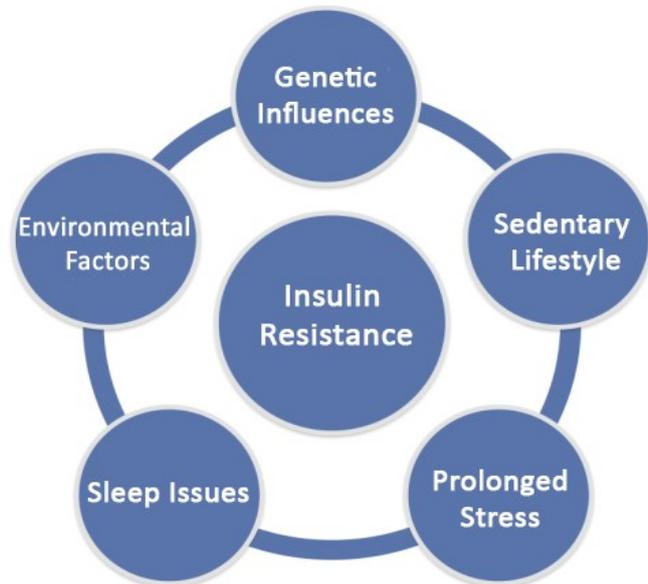
Insulin Resistance: A Pre-epidemic

Mr. Siddharth Uppal

Insulin resistance (IR) is a metabolic condition in which cells fail to respond to the normal action of the insulin hormone. The body produces insulin, but the receptor count for the hormone on the cells decreases which ultimately leads to **hyperglycemia** (Increase of glucose level in blood).

Beta cells present in the pancreas subsequently increase their production of insulin (to take care of the increased sugar levels), further contributing to hyperinsulinemia.

This often remains undetected and can contribute to a diagnosis of Type 2 diabetes.



Causes:

Lack of physical activity causes the cells to be less responsive to insulin.

Obesity also leads to insulin resistance.

Having a family history increases your chances of developing insulin resistance.

Cigarette smoking is one of the factors that contribute towards insulin resistance.

Consequence or complications:

Insulin resistance affects our body in a number of ways:-

High Blood Pressure, Obesity, Deranged cholesterols, Fatty liver, Gout, and Polycystic ovarian syndrome.

It also causes heart attack, renal failure and in some cases even stroke in brain.

Persistence of Insulin Resistance ultimately lead to **Type II Diabetes**.

Treatment:

- Having a healthy diet that includes foods which are low on the Glycemic index and taking more fiber rich diet.
- Regular exercise is must.
- Medicines (like, **Metformin**) are given to the patients with high Insulin levels. These medicines helps to decrease the Insulin resistance of the cells and prevents liver to release more glucose in blood.

R_x or Rx– Symbolizations in a prescription Mr. Pranav Prakash

1. Recipe for Wellness-

This concept originated in Latin province from the word “recipere” around mid-1500s when it started symbolizing an ORDER from the doctor- “TO TAKE”.

2. Prayer for Well-Being-

This symbol has yet another



share in the Roman mythology where it is given a meaning as a PRAYER to their great god Jupiter.

3. Keeping an Eye on Your Health-

This symbol, by some historians is speculated to be originated from the eye of an ancient Egyptian sky god- “Horus”. Sun being his right eye and moon being the left, which kept a sight on the entire world. “**EYE OF HORUS**”-

Garlic: Powerful herbal remedy

Mr. Mahaveer Singh

Garlic known as *allium-sativum* is an ideal herbal medicine, absolutely safe for household use. It cures nose, throat and chest infections and helps in circulatory disorders such as high blood pressure. Recent findings says that it reduces blood sugar level and helps to treat late onset diabetes.

Key constituents: volatile oil (alliin, alliinase), Selenium, Vitamin A,B,C,E

Key preparations:

Chopped cloves remedy :

Use regularly in cooking to reduce cholesterol level and to boost immunity.

Cold and Flu: Crush a medium sized garlic clove, similar

sized piece of fresh ginger, squeeze the juice from one lemon, mix all together with one spoon of honey add one cup of warm water and drink three cups at regular interval a day till symptoms last.

Cold sores: Eat 2 cloves of garlic with two slices of ginger (1gm) every day.

High blood pressure: One to two cloves every day.

For digestive system: One to two cloves every day.



Dandruff– Home Remedies

Mr. Mahaveer Singh

Dandruff or Seborrheic Dermatitis is a common scalp disorder occurring due to dry skin, irritated oily skin, growth of bacteria and fungus on the scalp and inflammatory skin conditions. It causes itchiness with formation of excessive dry skin flakes on the scalp.

Drugstore remedies:

1. Shampoos with antifungals and antibacterial like Zinc Pyrithione, Ketoconazole.
2. **Coal tar and Selenium Sulfide-** slow the growth and die-off of skin cells on your scalp.
3. **Salicylic acid-** loosens the flakes to be easily washed away.

Home Remedies:

1. Neem leaves: Boil a handful of leaves in four cups of water, cool, filter and use this decoction as a hair rinse two or three times a week.

2. Coconut oil: Take some coconut oil and mix half the amount of lemon juice in it, rub the solution on scalp and wash after 20 minutes. Do this twice a week.

3. Baking soda: Wet your hair and rub a handful of baking soda onto your scalp, after 5 minutes rinse your hair well with warm water. Do this twice a week.

4. Olive oil : Heat some extra virgin olive oil until it is slightly warm, and massage it onto your scalp and then wrap your hair in a warm towel, leave it on for at least 45 minutes or overnight and then shampoo and condition your hair.

5. Apple cider vinegar: Mix a quarter cup apple cider vinegar with a quarter cup water in a spray bottle and spritz on your scalp. Wrap your head in a towel and let sit for 15 minutes to an hour, then wash your hair as usual. Do this twice a week.

Ref: <http://www.top10homeremedies.com/home-remedies/home-remedies-for-dandruff.html>

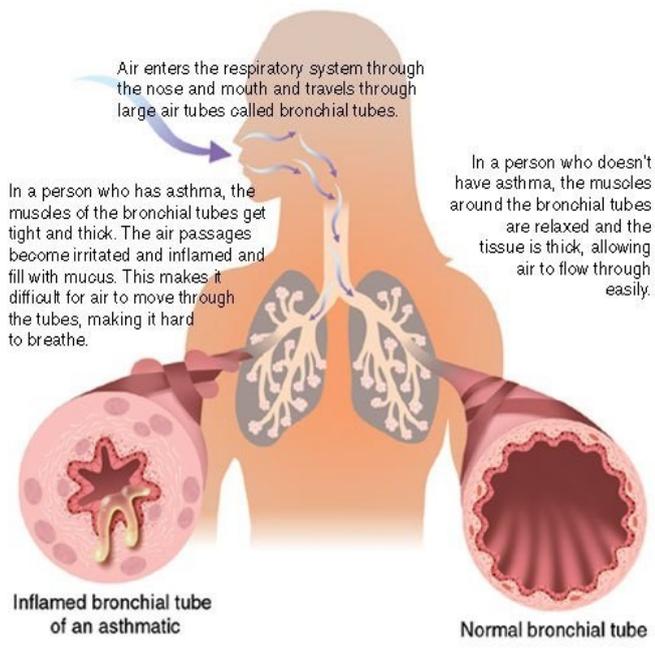
ALLERGIC ASTHMA

Mr. Kush Gupta

Allergy- It is an unusual heightened immune response to an allergen or any foreign particle entering our body which is an individual-specific phenomenon, a tendency to be hypersensitive.

Over 100 million people across the globe suffer from bronchial asthma and the number is rising! India accounts for about 15-20 million asthmatics with about 10% and 15% prevalence in 5-11 year old.

Asthma- An allergen can enter through various entry portals of human body such as mouth, nose, eyes or even penetrating the skin. But, when an allergic reaction results in the constriction and clogging of airways due to inflammation, it is termed as an Asthmatic attack.



Source: American Academy of Allergy, Asthma and Immunology

SYMPTOMS:

Coughing, Wheezing, Breathlessness and Chest Tightness.

Our airway system, through which we breathe, is made up of hollow tubes which are blocked by smooth muscles lining their walls (**Bronchoconstriction**) on commands of Autonomic Nervous System if an allergen enters.

Also, a heightened immune response is mounted which causes inflammation and thus, clogging of tubes by mucus and a reflex is set up to sneeze and cough in order to eject the allergen out.

COMMON ALLERGENS include- Pollens, Dust Mites, Animal Dander, Air Pollution and even Cold Air.

Prevention from allergens-

1. Staying inside as much as possible when pollen counts are high during particular seasons.

2. Get rid of items where dust gather like- Heavy Curtains or pile of clothing specially winters.

TREATMENT :

1. Bronchodilators to relax the smooth muscles and open the airways.

2. Steroids, leukotriene-inhibitors and anti-histamines to suppress the aggressive immune system.

MESSAGE TO OUR READERS:

SAVE WATER! SAVE FUTURE!

SWITCH OFF LIGHTS AND FANS WHILE LEAVING A ROOM OR CLASSROOM!

Next Issue will contain:

1. **Glycemic Index**
2. **BMR**
3. **BMI**

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