



Dr. BRR. GOVERNMENT COLLEGE,  
JADCHERLA, MAHABUBNAGAR (Dist.)

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DEPARTMENT OF CHEMISTRY

Topic

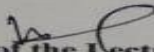
Use of Mosquito Repellents-Impact on Public  
Health


Conducted by students


Name of the Student	Hall Ticket No.	Course
RATI SAI RAM SINGH	210330064452087	BZC TM I Year
VADIKALA PRATHAP	210330064452103	BZC TM I Year
VADLA MOUNIKA	210330064452104	BZC TM I Year
VADLA SARITHA	210330064452105	BZC TM I Year
Y SHIVA PARVATHI	210330064452110	BZC TM I Year
ZAHEDA BEGUM	210330064452111	BZC TM I Year

Guided By

Ch. Venkateswarlu  
Asst. Prof. of Chemistry

  
Sign. of the Lecturer

  
I/c. Dept. of CHEMISTRY  
Sign. of the HOD College  
JADCHERLA

  
PRINCIPAL  
Sign. of the PRINCIPAL  
JADCHERLA





**MAT**



**CREAM**



**BRACELET**



**LOTION**



**COIL**



**CANDLES**



**FABRIC ROLL**



**VAPORIZER**



**PATCH**

# USE OF MOSQUITO REPELLENTS - IMPACT ON PUBLIC HEALTH





## **Introduction:**

To prevent mosquito bites and diseases transmitted through mosquitoes people followed safety measurements from the beginning.

In recent days as the population of mosquitoes increases, the intensity of the diseases transmitted also increased.

The people instead of following the traditional methods to avoid mosquito bite diseases, people are getting attracted to modern methods.

- The size of the mosquito is  $5\frac{1}{2}$ mm.
- Life time is 30 days.
- Flying speed of the mosquito is 1 to 1.5 m/hrs
- They fly 75 to 100 miles
- 2500 types of mosquitoes on the earth
- The wings of the mosquitoes vibrates 650 times per second
- So we hear zoom sound



# Diseases caused due to Mosquito Bite:



❖ Malaria

❖ Cerebral Malaria

❖ Lymphatic filariasis

❖ Chikun gunya

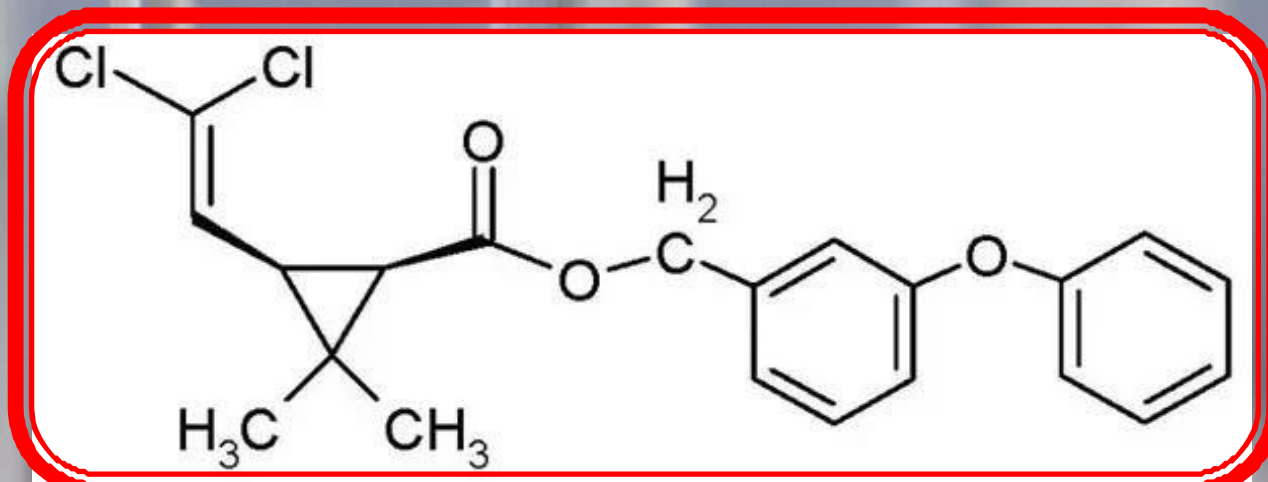
❖ Dengue

❖ Japanese encephalitis

❖ Zika

# Composition of Mosquito Repellents

- Pyrethrum
- Pyrethrins
- Allethrin
- Dibutyl hydroxyl toluene
- Piperonyl butoxide
- N-(2-ethyl hexyl)-bicyclo-(2,2,1)hept-5-ene-2,3-dicarboximide
- N,N-Diethyl-Meta-Toluamide.
- some imported mosquito coils contain chemical, but their use is illegal in the United States, moreover in places like India S-2 is not banned.
- **Pyrethroid** is an Organic Compound
- Mosquito Repellents are **Carcinogenics**





## Side effects

Hyperexcitation of the nervous system.

- Respiratory Irritation
- Eye Irritation
- Long term effect is nerve damage. Allethrin is a neuro-toxic compound.
- The most common perceived side effect was headache which was felt by 7.7% of the study subjects.
- Cough (3.2%), sore throat (2.7%), allergy (1.3%), and eye irritation (0.9%) were other side effects reported.
- Eye irritation (2.8%), and often accompanied by bronchial irritation, headache, or skin reaction.
- Cough, cold, and running nose were accompanied with fever or sneezing in 1.6% cases.



## *Impact: (Regular Usage)*

- We the human beings, breathe in the air mixed with repellent chemicals for than 7 hours daily on regular basis.
- The smoke of one Coil is equal to 100 cigarettes.
- On regular use of repellent or coils, humans will have all lungs related to disease like cold, cough, whizzing, asthma, Cancer etc.
- All these lung related diseases are the side effects of repellents and coils.



## Some safe and natural mosquito repellents that can be used are:

- Install mosquito **meshes** and use mosquito **nets and bats**.
- Burning earthen lamps containing **neem oil** also benefits in keeping the mosquitoes at a bay.
- Burning eucalyptus, lemongrass or citronella candles.
- Shift your **tulsi** plant near the window
- Cut and sprinkle **garlic** on the outdoors living area, it is a very natural way to repel mosquitoes
- Observe basic of rules of **hygiene, no stagnant water**, no filth and keep mosquitoes away from you.

## Conclusions:

- Only female mosquitoes can bite and squeeze the blood by injecting infectious saliva containing dangerous pathogens because they need a nutritional hit to develop eggs.
- There are up to 400 chemical compounds present on human skin that could play a role in attracting mosquitoes.
- Mosquitoes can sense carbon dioxide from quite a distance.
- Lactic acid is one of the key substances present in the sweat attracts mosquitoes.



**Herbolent** has come up with a total chemical free Mosquitorepellent which is guaranteed a herbal product. Using Herbolent as an alternative to other chemical products works the same way as that of any other repellent and the advantage of it being made of only herbal essential oils.

- *Cymbopogon citratus* (Lemon Grass)
- *Eucalyptus globulus* (Nilagiri )
- *Azadirachta Indica* (Neem)