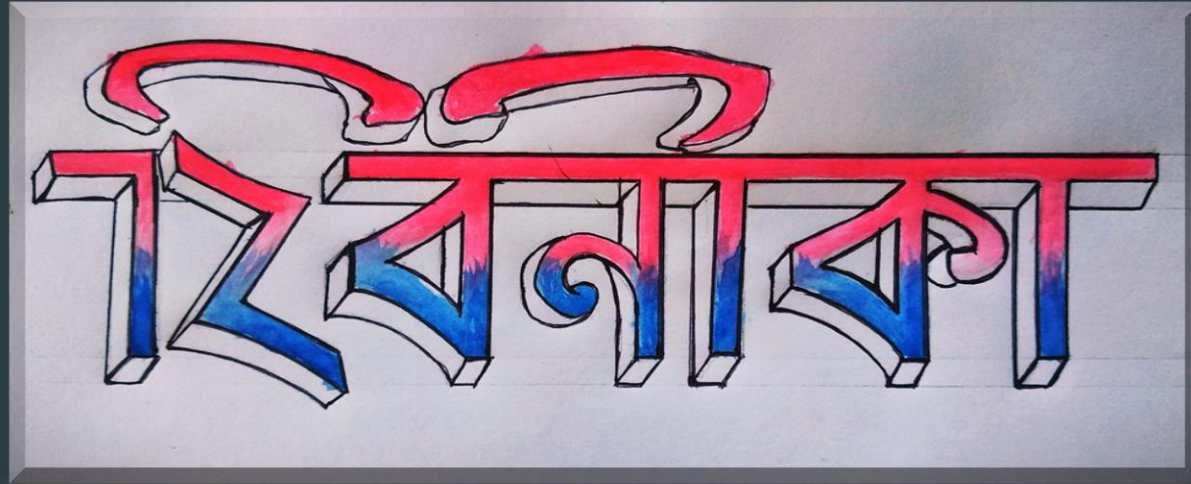


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By

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DENGUE A FATAL DISEASE



What is dengue ?

Dengue is an mosquito-borne infection causing a severe flu-like illness and sometimes causing a potentially lethal complication called severe dengue. The full life cycle of dengue fever virus involves the role of mosquito as a transmitter (or vector) and humans are the main victim and source of infection.

How is it spread ?

- through the bites of infected Aedes mosquitoes (A. aegypti or A. albopictus).*
- From a pregnant woman infected with dengue to her fetus during pregnancy or around the time of birth.*
- To date, there has been one documented report of dengue spread through infected blood, laboratory, or healthcare setting exposures*
- Rarely, dengue can be spread through blood transfusion, organ transplant, or through a needle stick injury.*

Dengue virus

- There are four distinct serotypes of the dengue virus*
- DEN1, DEN2, DEN3 and DEN4, meaning that it is possible to be infected four times*

History

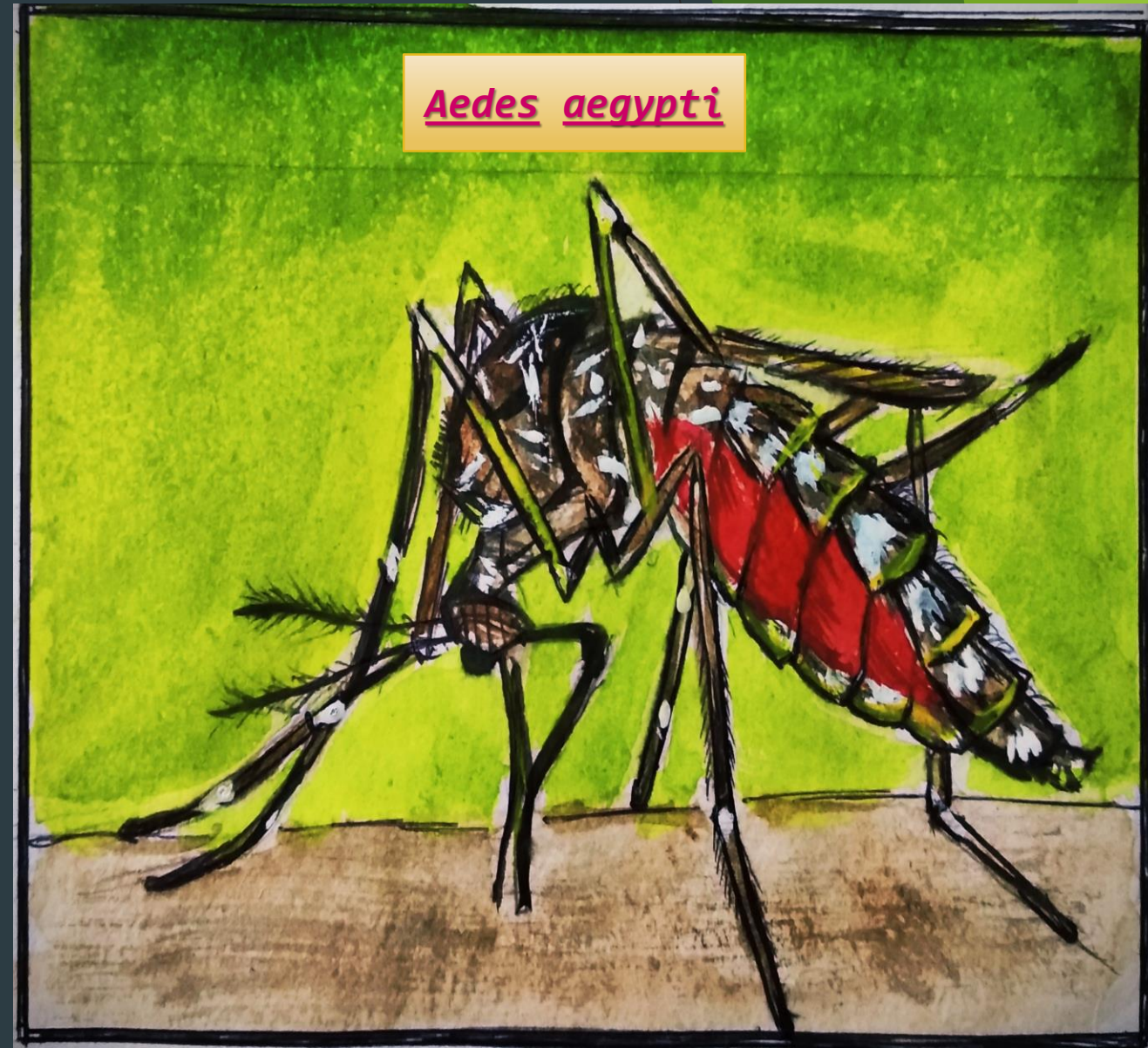
- Severe dengue was first Recognized in 1950, during dengue epidemic in the Philippines and Thailand.*
- Delhi and parts of North India experienced a large number of cases of Dengue in 1996, 2003 and 2006*
- According to NVBDCP, 67000 dengue cases of dengue fever as of 13'th October, 2019 in India.*

TYPES OF DENGUE MOSQUITOES

Aedes aegypti

Principal dengue vector

- *a small, dark mosquito with white bands on it's legs and a silver white-pattern of scales of it's body that looks like an ancient Greek musical instrument called a lyre.*
- *They are also called yellow fever mosquito.*
- *They spread dengue, Chikungunya fever and yellow fever.*
- *They are found in tropical and sub-tropical countries.*



Aedes albopictus

Tiger mosquito / forest mosquito

- a medium-size mosquito approximately 2.0-10.0 mm, males are on average 20% smaller than females
- striped appearance, resemble to tiger
- has a black proboscis, eyes and labium all at the anterior end of the insect.
- White and black scutum contains a white line dissecting the dorsal part of the mosquito in half.
- native to all the tropical and sub-tropical areas of Southeast Asia.
- They also spread chikungunya, yellow Fever and the Zika Virus.



Aedes polynesiensis

Polynesian tiger mosquito

- *Vector of, Ross River virus, and lymphatic filariasis, and Zika virus.*
- *Adults lay eggs in natural and freshwater pools.*
- *Found in south Pacific Islands of Austral Islands, Cook Islands, Fiji Islands*
- *Larvae are found in tree holes, holes in volcanic rock formations, coconut shells etc.*

Aedes polynesiensis



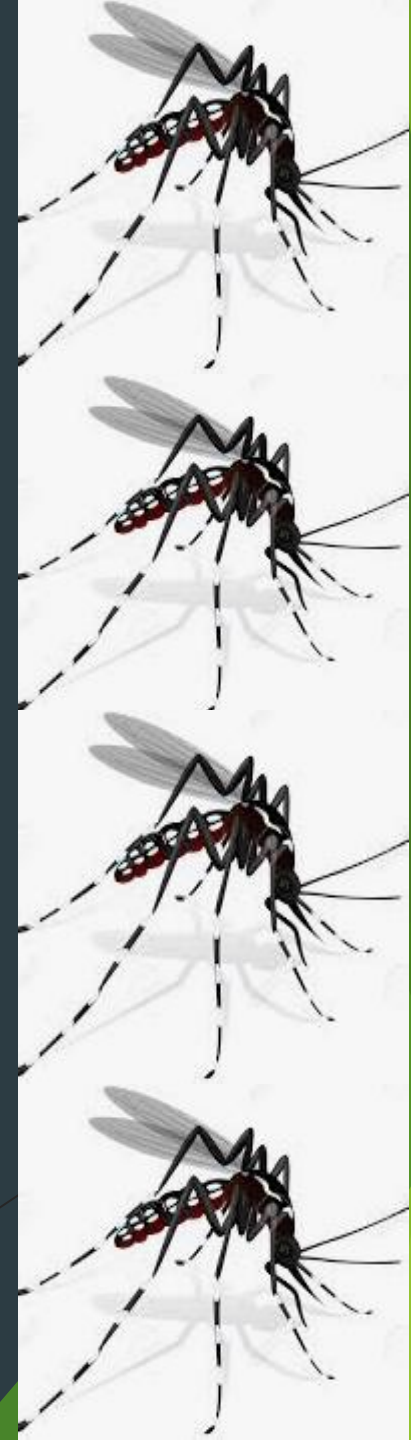
Distribution

- *Aedes aegypti* mainly found in tropical and subtropical (35°N and 35°S) regions all over the world in cold temperate places, at altitudes above 1000 m.
- Although some mosquitoes may travel farther north or south of these latitudes, they are unable to survive cold winters.

Types of DENGUE FEVER:

Common name of the disease is **'break-bone fever'** because of severe body and joint pains produced. There are 3 types of Dengue fever.

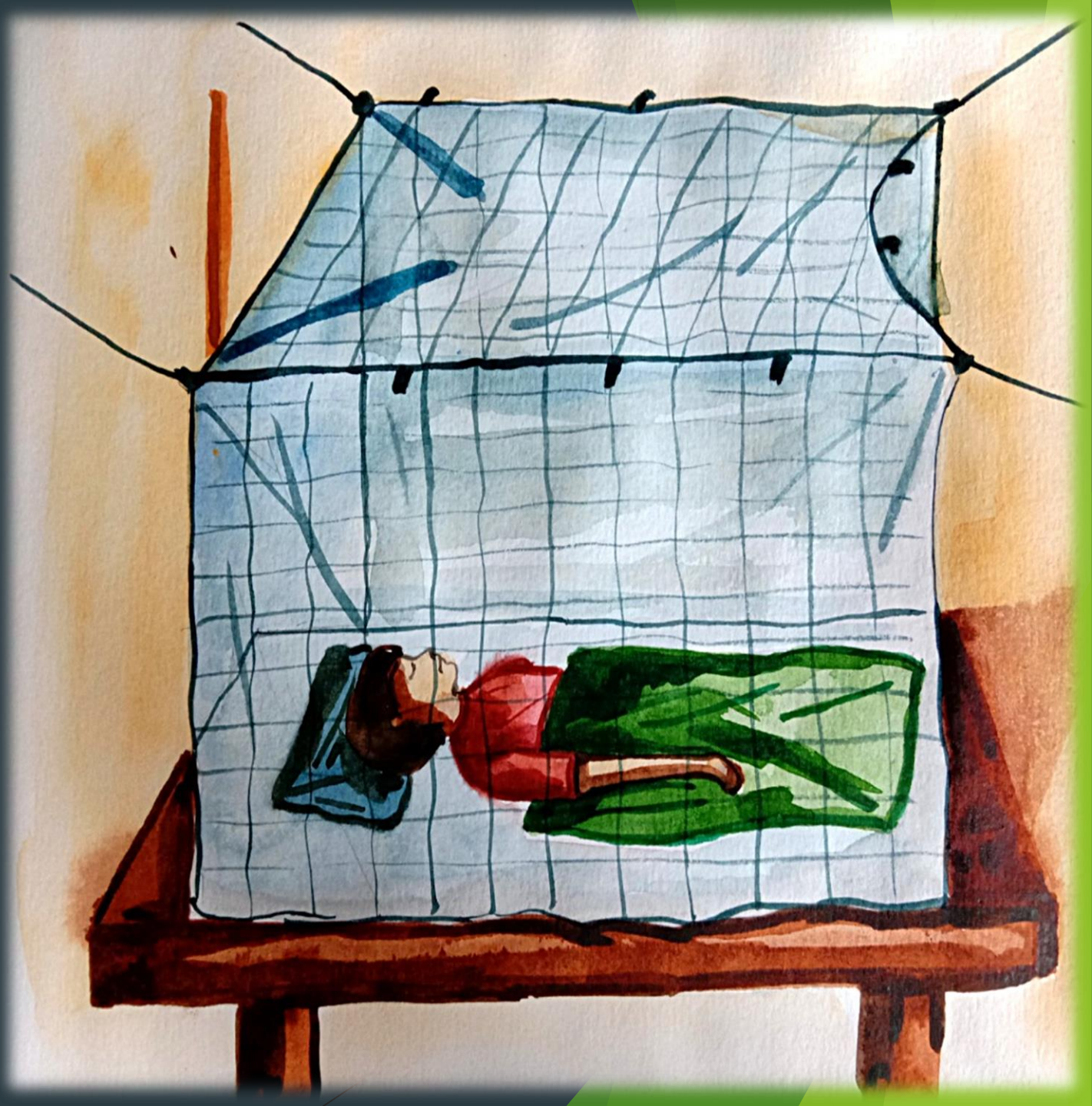
1. **Classical Dengue Fever**
2. **Dengue Haemorrhagic Fever (DHF)**
3. **Dengue Shock Syndrome (DSS)**



Recognition of Dengue Fever:

An acute illness of 2-7 days duration with two or more complications are as follows:

- *headache*
- *retro -orbital pain*
- *rash*
- *haemorrhagic manifestation and*
- *Myalgia*

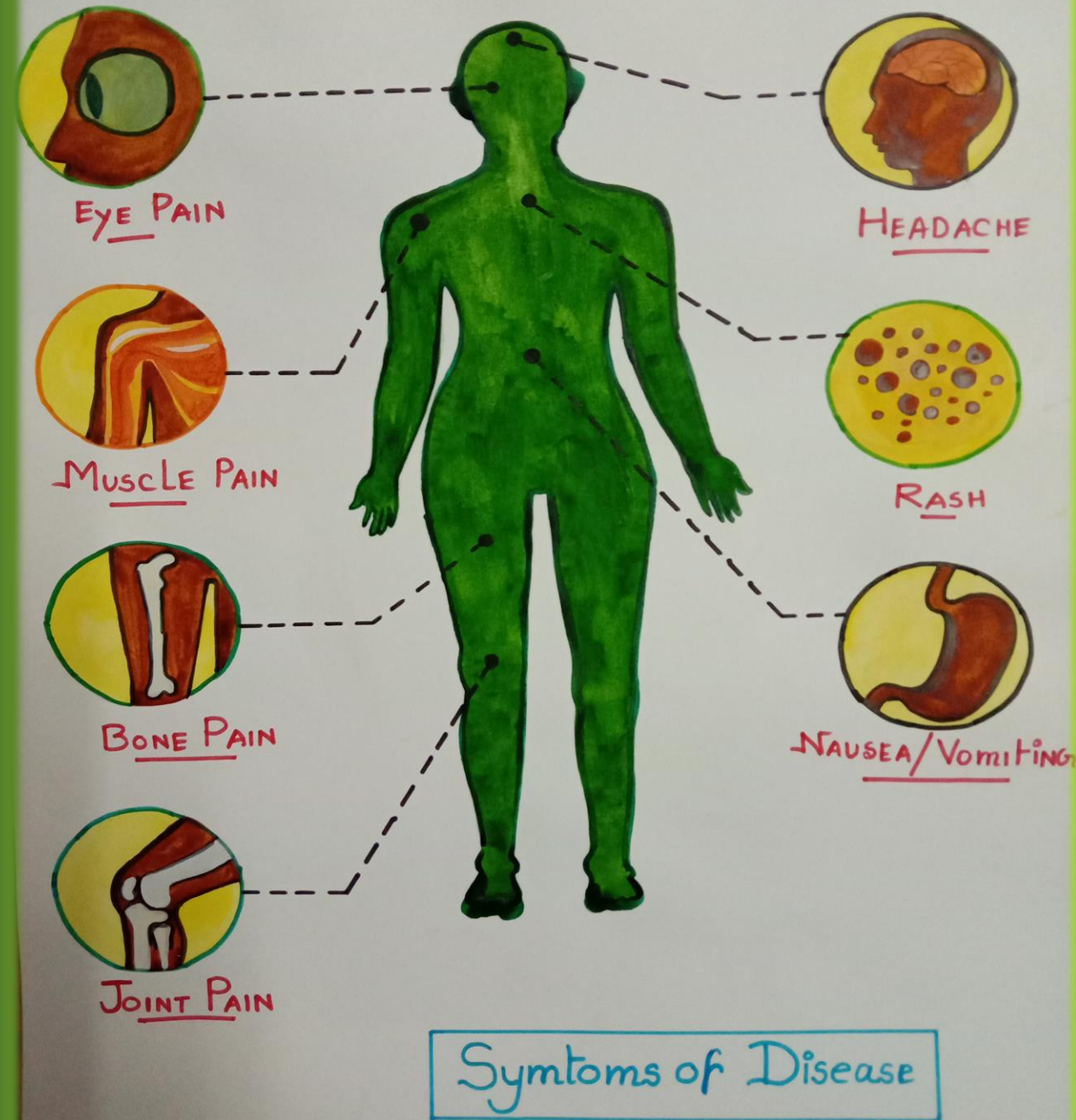


1. Classical (simple) Dengue fever :

Symptoms are seen after a week from the bite –

- a. sudden onset of high fever with feeling of chills.*
- b. severe headache, pains in muscles and joints.*
- c. pain behind the eyeballs*
- d. vomiting and feeling nauseous*
- e. body rash that can disappear and then reappear.*

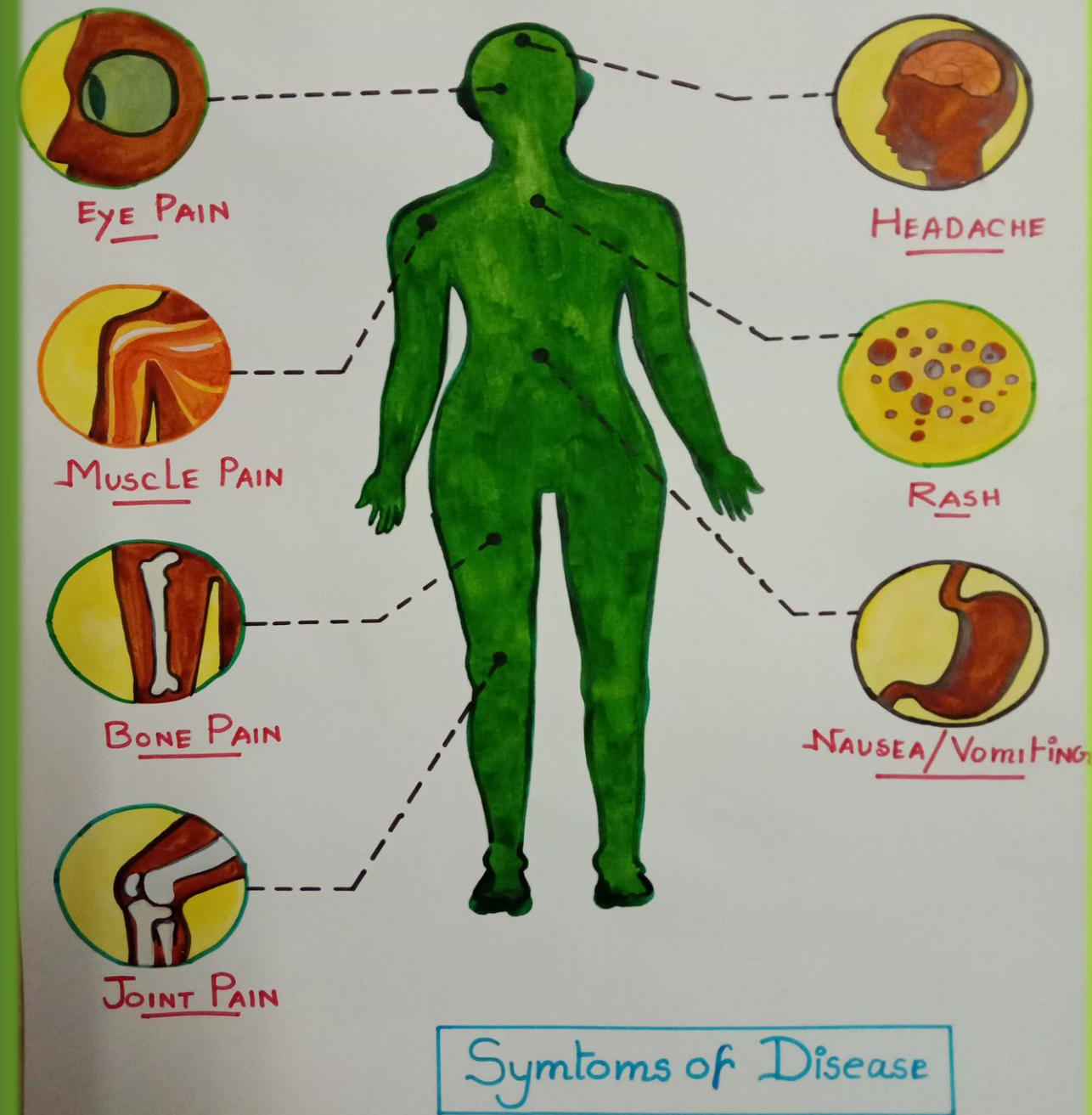
Symptoms are mild but can gradually worsen within a few days.



2. Dengue Hemorrhagic Fever (DHF):

It should be suspected if with above symptoms of classical Dengue fever, one or more of the following symptoms appear-

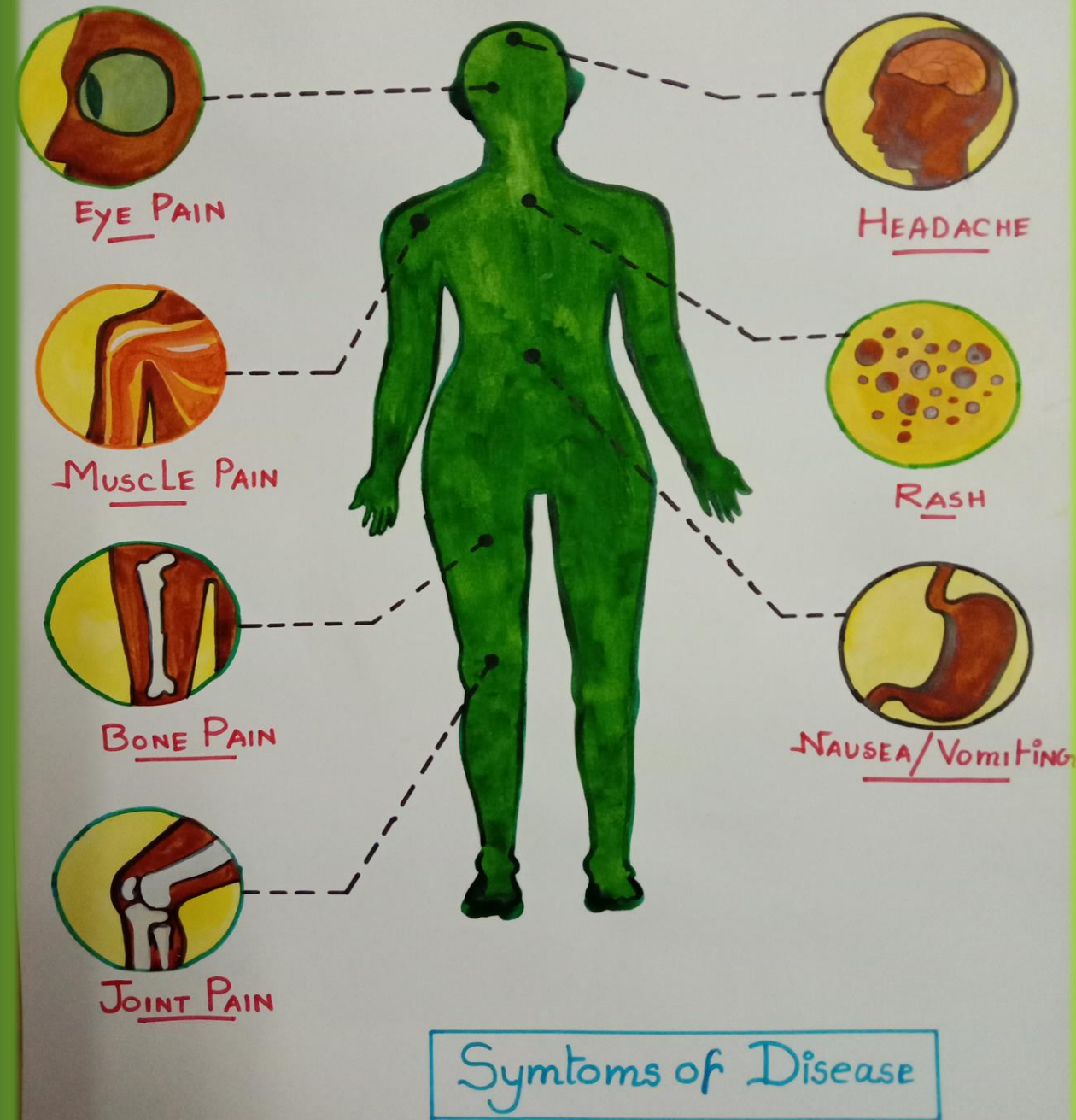
- Bleeding from the mouth, gums or nose*
- damage to lymph and blood vessels*
- clammy skin*
- sensitive stomach*
- small blood spots under the skin.*



3. Dengue Shock Syndrome (DSS):-

This is a severe form of dengue. It can be fatal.

- *The experiences of victims are—*
 - a. the person is very restless and the skin feels cold and clammy despite high fever.*
 - b. sudden hypotension or a fast drop in blood pressure.*
 - c. heavy bleeding. e. regular vomiting.*
 - d. Without treatment, it can even cause death.*





TREATMENT:

- *Classical (simple) dengue fever is self-limiting disease, the patient be managed at home.*
- *Keep the fever low by giving paracetamol tablets or syrup as per health worker's advice*
 - *Avoid giving Aspirin or disprin tablets to the patient.*
 - *At 102 degree Fahrenheit temperature, hydrotherapy should be done to bring down the temperature.*
 - *More feeding is required.*
 - *Children and pregnant need extra care.*
- *In case of DSS and DHF patient should taken to nearest hospital as early as possible*



PRECAUTION:



- *Killing of mosquito is the best possible way to prevent this disease.*

Following measures are taken to prevent mosquito bite:

- *Wear long-sleeve shirts and long pants.*
- *Treat clothes with repellents like permethrin,*
- *Use EPA-registered mosquito repellent like DEET*
 - *Use mosquito net.*
 - *Remove excess water from plant pot plates.*
- *Make sure windows and doors screens are closed to avoid allowing mosquitoes into in closed spaces.*
 - *Avoid areas with standing water.*



PRECAUTION:

- *Especially at times of high mosquito activity like dawn and dusk, scrub containers to remove mosquito eggs.*
- *Clean your home regularly. Keep the dustbins clean; do not let any dirt .*



CONCLUSION:

- *Dengue fever is a dangerous and debilitating disease, and it's a growing threat to global health.*
 - *It is the second most wide spreading in the world.*
- *The World Health Organization have estimated that between 50 and 100 million people suffer from dengue fever each year.*
 - *There is no particular vaccine to protect against it.*
- *So the best way to protect yourself from dengue is to protect yourself from mosquito bites.*
 - *The more steps you take, the more protected you are.*

GENERAL AWARENESS:

- *All the empty containers should be cleaned to prevent laying eggs of mosquito in or near water.*
- *Treat clothes, shoes and camping gear with permethrin*
- *Make sure drain are not blocked and use mosquito killing spray around the drain once a week.*
- *When camping or picnicking choose an area that is away from still water.*
- *If you are infected use hand sanitizer or hand wash to keep germs free.*
- *Use insect repellent with ingredients like oil of lemon eucalyptus, picaridin.*



REFERENCES

- Parasitology Protozoology and Helminthology 13 Edition , K.D. Chatterjee.
 - Imms' General Text Book Of Entomology – Volume I

STOP

DENGUE

Aedes
Small, but

DEADLY.

शुभकामना



Thank you

शुभकामना