

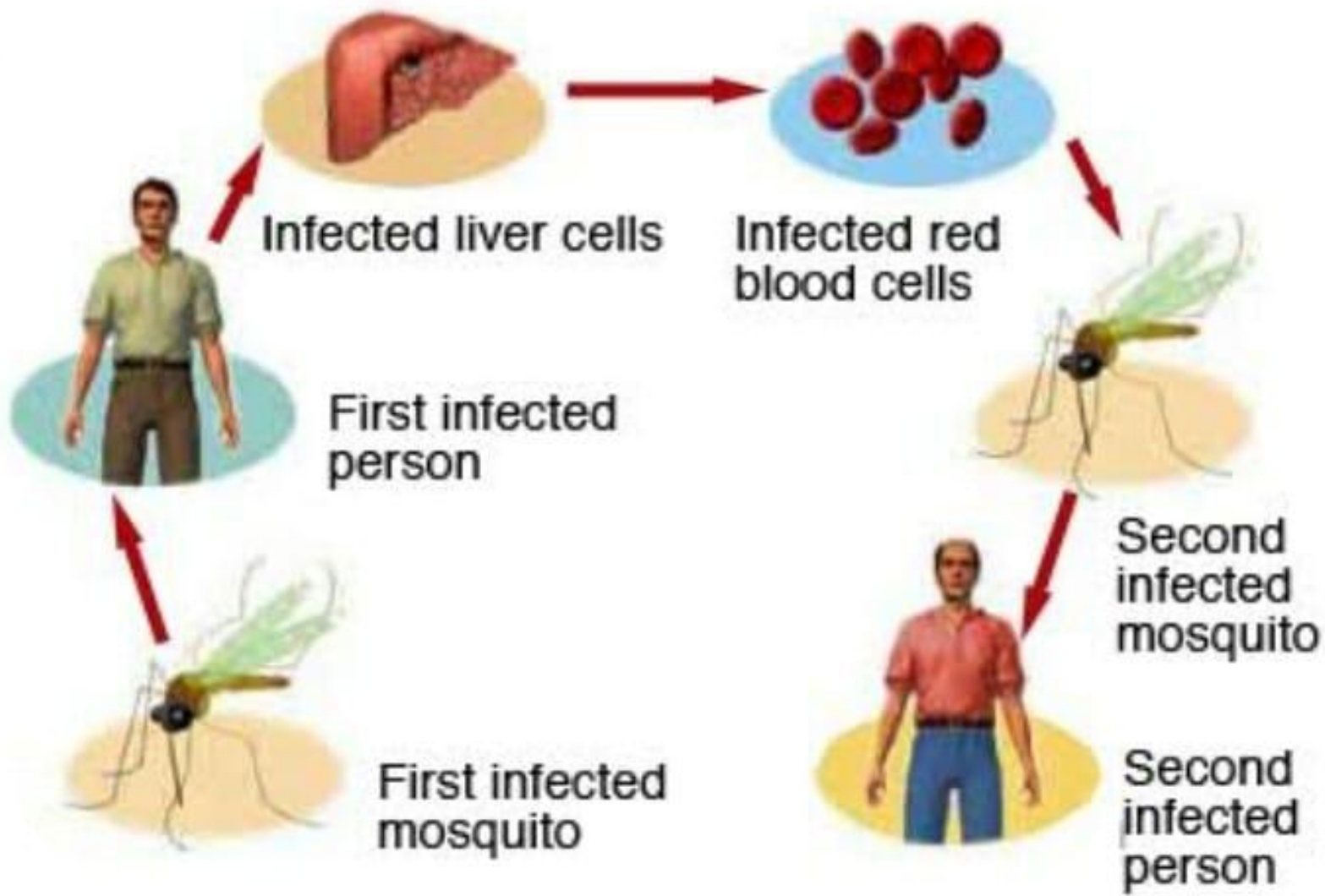
# MALARIA

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Malaria is a life threatening disease. Malaria is a mosquito-borne infectious disease affecting humans and other animals caused by *single-celled* micro organisms belonging to *Plasmodium* group. The disease is most commonly transmitted by an infected *female Anopheles* mosquito. The mosquito bite introduces the parasites from the mosquito's saliva into a person's blood.

- Malaria is an infectious disease caused by protozoan parasites from the *Plasmodium* family that can be transmitted by the bite of the Anopheles mosquito or by a contaminated needle or transfusion.
- Malaria is predominantly found in the tropical and sub-tropical areas of Africa, South America and Asia.
- If not detected and treated properly, malaria can be fatal. However, with the right treatment, started enough early, it can be cured.
- It is estimated that there were 198 million cases of malaria in 2013 and 584,000 deaths.
- Around 95% of deaths are in children under the age of 5 living in Sub-Saharan Africa.
- However, death rates have fallen globally by 47% since 2000.



# CAUSES

Malaria is caused by the Plasmodium parasite. The parasite can be spread to humans through the bites of infected mosquitoes.

There are five types of mosquito which cause malaria. They are:

- **Plasmodium falciparum** – mainly found in Africa, it's the most common type of malaria parasite and is responsible for most malaria deaths worldwide.
- **Plasmodium vivax** – mainly found in Asia and South America, this parasite causes milder symptoms than Plasmodium falciparum, but it can stay in the liver for up to 3 years, which can result in relapses.

**Plasmodium ovale** – fairly uncommon and usually found in West Africa, it can remain in your liver for several years without producing symptoms.

**Plasmodium malariae** - this is quite rare and usually only found in Africa

**Plasmodium knowlesi** – this is very rare and found in parts of southeast Asia

*P. falciparum*

*P. vivax*

*P. malariae*

*P. ovale*

Rings



Schizonts



Gametocytes





# Signs and Symptoms

Symptoms of malaria can develop as quickly as 7 days after you're bitten by an infected mosquito.

Typically the time between being infected and when symptoms start is 7-18 days, depending on the specific parasite. However, in some cases it can take up to a year for symptoms to develop.

Symptoms include:

- A high temperature of 38C or above
- Feeling hot and shivery
- Headaches
- Vomiting
- Muscle pains

- Diarrhoea
- Generally feeling unwell

With some types of malaria, the symptoms occur in 48-hour cycles. During these cycles, you feel cold at first with shivering. You then develop a high temperature, accompanied by severe sweating and fatigue. These symptoms usually last between 6 and 12 hours.

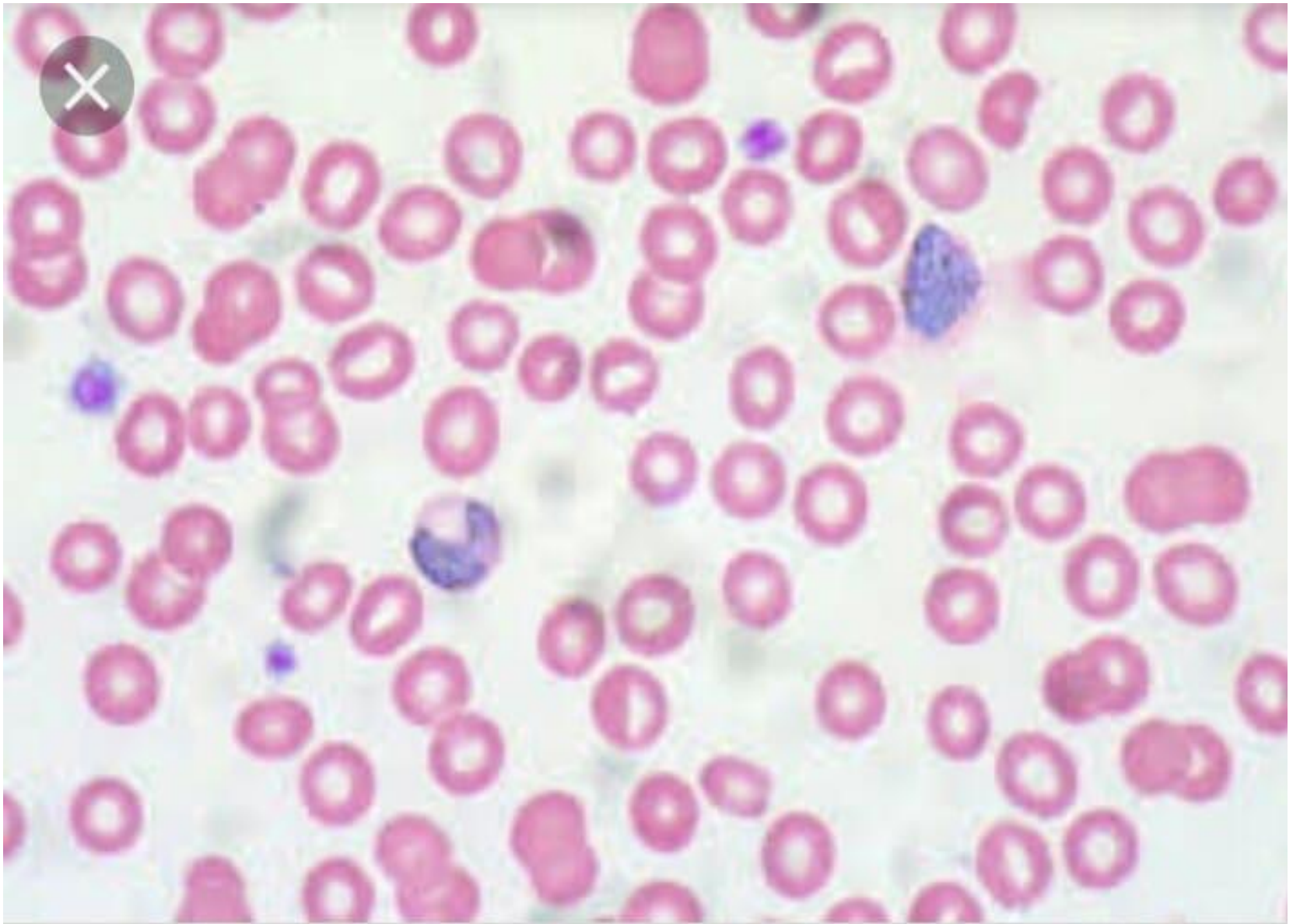
Malaria diagnosis is done by microscopic examination of blood, utilizing blood films.

Although blood is the sample most frequently used to make a diagnosis, both saliva and urine have been investigated as alternative, less invasive specimens.

More recently, modern techniques utilizing antigen tests or polymerase chain reaction has been discovered, but not widely implemented in malaria endemic regions.

Immunochromatographic tests (also called malaria rapid diagnostic test have been develop and distributed.

This test often include a combination of two antigens.



# Prevention

There is a significant risk of getting malaria, from the affected area and it is very important for us to take a precaution to prevent the disease.

We can prevent this disease by using ABCD approach.

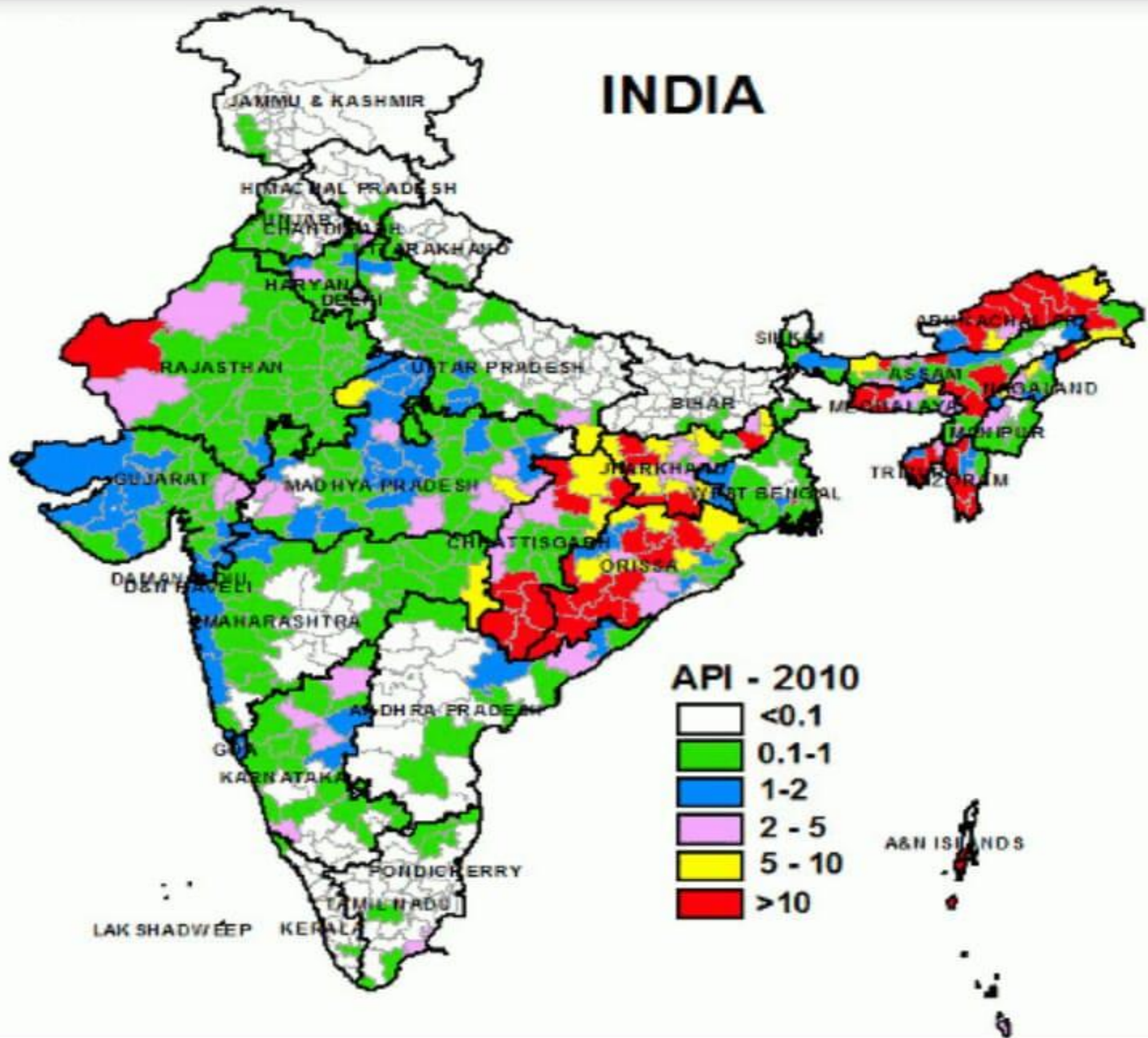
Awareness of risk – Find out whether you are at risk of getting malaria

Bite Prevention – Avoid mosquito bites by using insect repellent , covering your arms & legs, and using mosquito net

Check whether you need to take malaria prevention tablets – if you do, make sure you take the right antimalarial tablets at right dose, and finish the course.

Diagnosis - Seek immediate medical advice if you have malaria symptoms, including, upto a year after you return from traveling

# INDIA



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**Thank You...**