

Bisphenol A

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In news— A study conducted in Thiruvananthapuram, Kerala, suggests Bisphenol A can indirectly aid in the spread of vector-borne diseases in humans and animals.

What does the study say?

- **It says that Bisphenol A can significantly shorten the breeding time of southern house mosquitoes**, a major carrier of the West Nile virus, Rift Valley fever virus and avian pox in tropical and subtropical countries, and thereby aid in its quick multiplication.
- The finding is unique as till date, **BPA is known to impair reproduction and development in aquatic organisms.**
- BPA exposure delays larval development and pupation time in common fruit fly (*Drosophila melanogaster*).
- In *Drosophila ananassea*, another type of fruit fly, high doses of BPA increases the life cycle duration from seven to nine hours.
- **High doses of BPA also cause several phenotypic abnormalities** in adults that include asymmetrical antennae, miniature arista, absence of arista and others.
- **The life cycle of mosquitoes has four stages:** egg, larva, pupa and adult mosquito. BPA has a significant impact on embryonic and larval development.

What is Bisphenol A?

- Bisphenol A is a chemical compound **& colourless solid which is soluble in most common organic solvents**, but has very poor solubility in water.
- It is **used to manufacture polycarbonate plastics.** This

type of plastic is used to make some types of beverage containers, compact disks, plastic dinnerware, impact-resistant safety equipment, automobile parts, and toys.

- It is a When ingested, the chemical that is widely used to soften plastics, paints and other products, disrupts the endocrine system by interfering with the hormones and affects the brain and prostate gland of fetuses, infants and children.
- Several studies establish that the chemical can cause high blood pressure, diabetes and cardiovascular disease in adults.