

Butterfly Life Cycle

The butterfly and moth develop through a process called **metamorphosis**. This is a Greek word that means **transformation or change in shape**.

Insects have two common types of metamorphosis. Grasshoppers, crickets, dragonflies, and cockroaches have **incomplete metamorphosis**. The young (called a nymph) usually look like small adults but without the wings.

Butterflies, moths, beetles, flies and bees have **complete metamorphosis**. The young (called a larva instead of a nymph) is very different from the adults. It also usually eats different types of food.

There are four stages in the metamorphosis of butterflies and moths: egg, larva, pupa, and adult.



Egg

Eggs are laid on plants by the adult female butterfly. These plants will then become the food for the hatching caterpillars.

Eggs can be laid from spring, summer or fall. This depends on the species of butterfly. Females lay a lot of eggs at once so that at least some of them survive.

Butterfly eggs can be very small.



Caterpillar: The Feeding Stage

The next stage is the larva. This is also called a caterpillar if the insect is a butterfly or a moth.

The job of the caterpillar is to eat and eat and eat. As the caterpillar grows it splits its skin and sheds it about 4 or 5 times. Food eaten at this time is stored and used later as an adult.

Caterpillars can grow 100 times their size during this stage. For example, a monarch butterfly egg is the size of a pinhead and the caterpillar that hatches from this tiny egg isn't much bigger. But it will grow up to 2 inches long in several weeks.



Pupa: The Transition Stage

When the caterpillar is full grown and stops eating, it becomes a pupa. The pupa of butterflies is also called a chrysalis.

Depending on the species, the pupa may be suspended under a branch, hidden in leaves or buried underground. The pupa of many moths is protected inside a cocoon of silk.

This stage can last from a few weeks, a month or even longer. Some species have a pupal stage that lasts for two years.

It may look like nothing is going on but big changes are happening inside. Special cells that were present in the larva are now growing rapidly. They will become the legs, wings, eyes and other parts of the adult butterfly. Many of the original larva cells will provide energy for these growing adult cells.



Adult: The Reproductive Stage

The adult stage is what most people think of when they think of butterflies. They look very different from the larva. The caterpillar has a few tiny eyes, stubby legs and very short antennae. The adults have long legs, long antennae, and compound eyes. They can also fly by using their large and colorful wings. The one thing they can't do is grow.

The caterpillar's job was to eat. The adult's job is to mate and lay eggs. Some species of adult butterflies get energy by feeding on nectar from flowers but many species don't feed at all.

Flying comes in handy. The adult female can easily fly from place to place to find the right plant for its eggs. This is important because caterpillars can't travel far.

Most adult butterflies live only one or two weeks, but some species hibernate during the winter and may live several months.