# **Stages of sleep**

There are two types of sleep: REM — or rapid eye movement — sleep and non-REM sleep. Non-REM sleep consists of multiple stages, while REM sleep is just a single stage.

## Stage 1

This stage of non-REM sleep happens when you begin to fall asleep and generally lasts only a few minutes.

During this stage:

- heartbeat and breathing slow down
- muscles begin to relax
- you produce alpha and theta brain waves

#### Stage 2

This next stage of non-REM sleep is a period of light sleep before you enter deep sleep, and it lasts for roughly 25 minutes.

During this stage:

- heartbeat and breathing slow down further
- no eye movements
- body temperature drops
- brain waves spike up and down, producing "sleep spindles"

### Stages 3 & 4

These final stages of non-REM sleep are the deepest sleep stages. Stages three and four are known as slow wave, or delta, sleep. Your body performs a variety of important health-promoting tasks in these final non-REM stages.

During these stages:

- arousal from sleep is difficult
- heartbeat and breathing are at their slowest rate
- no eye movements
- body is fully relaxed
- delta brain waves are present
- tissue repair and growth, and cell regeneration occurs
- immune system strengthens

## Stage 5: REM sleep

The rapid eye movement stage occurs about 90 minutes after you fall asleep, and is the primary "dreaming" stage of sleep. REM sleep lasts roughly 10 minutes the first time, increasing with each REM cycle. The final cycle of REM sleep usually lasts for roughly 60 minutes.

During this stage:

- eye movements become rapid
- breathing and heart rate increases
- limb muscles become temporarily paralyzed, but twitches may occur
- brain activity is markedly increased

When you fall asleep at night, you cycle through all of these stages of sleep multiple times – roughly <u>every 90 minutes</u> or so.