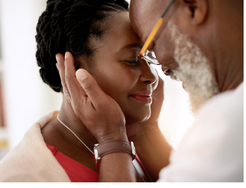


From trial to treatment

How clinical trials help find new treatments to help save and improve lives[1]

What are clinical trials?

Clinical trials are research studies with volunteers designed to learn more about how our bodies respond to drugs or other treatments. Clinical trials test possible drugs, vaccines or medical devices to see if they work and if they are safe. It may take many clinical trials all around the world to understand which study treatments work and how they work.

Clinical trials are a key part of the drug development process and the mission to:

- Help save and improve lives
- Make sure new treatments are safe and work well
- Find new and better ways of keeping people healthy

Clinical trials rely on people who volunteer to be trial participants. It's vital that these people come from diverse backgrounds. That way, the clinical trial can show if the treatment is safe and works well for people from all different communities.

Clinical trials happen in 4 phases to make sure the treatment is safe and works well

	Phase 1[2,3]	Phase 2[2,3]	Phase 3[2,3]		Phase 4[2,3]
Questions it may answer:	Is the treatment safe? How much of it is needed? Are there any side effects?	How well does the treatment work? Is it safe and what are the potential side effects? How much of it is needed? Are there any new side effects?	How well does the treatment work over time? Is it safe? How much of it is needed? Are there any new side effects? Does the new treatment work better than an existing treatment or a placebo? (A placebo looks like the trial treatment, but has no active medication)	**Government agency review and approval:** Drug maker applies for approval. A treatment must be approved before doctors can prescribe it.	How well does the treatment work over time? Does it work well for all types of people? Are there any new side effects? Can it work to treat other diseases?
Who takes part:	A small group (up to about 100) of usually healthy people	A larger group (about 100 to 500) of healthy people, or people with a certain disease	A new, larger group (about 1,000–5,000) of people		A large group (thousands) of people who have been prescribed the new treatment
How long it takes:	6 months to 1 year	6 months to 1 year or more	1 to 4 or more years		Ongoing for many years

Clinical trials take time and resources:

- A treatment usually takes several years to move from a Phase 1 trial to government approval for doctors to prescribe it
- Clinical trials require financial investment from sponsors. Merck is the sponsor of a variety of clinical trials in different diseases and conditions
- Thousands of people in many countries contribute to clinical trials, including patients, researchers, health care professionals and support staff

Why are clinical trials needed?

Clinical trials are needed to find new treatments to improve people's health and save lives. Most new treatments must be tested in clinical trials before government agencies can approve them for doctors to prescribe to people.

Clinical trials need a diverse group of volunteers to take part[4,5]

Enrolling diverse people in clinical trials helps make sure treatments are safe and work well for different communities. Different people may have different reactions to the same treatment, based on their age, gender, weight, race, ethnicity and other factors.

We strive to enroll diverse people in our clinical trials to help us bring new medicines to people.

In a survey of over 12,000 people,[6] most people considered taking part in a clinical trial to be the greatest gift they could make for human health.

There are many reasons why people volunteer for clinical trials

By taking part in a clinical trial, you can:

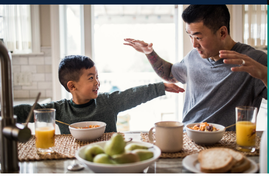
- ✚ Help future patients by advancing medical research
- ✚ Take an active role in your own health care

Clinical trials also have some risks, such as:

- ✖ Unwanted side effects
- ✖ The treatment may not work
- ✖ Extra time and attention for trial-related tasks and visits

Clinical trials show which products are safe and work well in patients

- Did you know that most products that undergo laboratory testing never make it to human testing in clinical trials?
- Of the ones that enter clinical trials, only 12% will be approved by a government agency.[7]



We are grateful to the thousands of volunteers who take part in our clinical trials

At Merck, we support and encourage health care professionals' efforts to raise people's awareness and understanding of clinical trials.

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