

**Which different types of vaccines
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- “Inactivated (killed) vaccine “ developed by Jonas Salk (Inactivated Poliovirus Vaccine: IPV) given by injection.
- “Attenuated (live) vaccine” developed by Albert Sabin (Oral Poliovirus Vaccine: OVP) given as an oral (by mouth) liquid

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- The polio virus was passaged through different animals “monkeys” and different types of cell cultures (testicular, kidney cell cultures) and tissues (monkey skin) to accumulate mutations during virus replication.
- The aim was to weaken the virulence of the polio virus by these mutations, that it still can grow on human tissue but at a much slower rate to establish a strong immune response which eliminates the attenuated virus and provides simultaneously protection against a new polio infection.

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- Herd immunity is a form of immunity that occurs when a high percentage (usually 90-95%) of a population is protected through vaccination against a virus or bacterium making it difficult for the pathogen to spread because there are so few susceptible people.
- Herd immunity therefore provides also protection for individuals who have not been vaccinated.