

# Polio 2025

Since 2000, more than 10 billion doses of OPV have been administered to nearly 3 billion children worldwide. As a result, more than 13 million cases of polio have been prevented, and the disease has been reduced by more than 99%.

There are 140 million babies born each year  
so vaccinations must be ongoing

Polio paralyzed 16,000 Americans annually in the pre-vaccine era. In 1952 alone, polio caused 57,879 cases and 3,145 deaths, and paralyzed 21,269 Americans. Since 1979, there have been zero cases of wild poliovirus in the United States — a 100% reduction.

Rotary has helped vaccinate nearly 3 billion children across hundreds of countries since 1985, at a cost of \$2.9 billion

Together, we hope to mobilize up to \$450 million in new funding over the next three years. These funds will be used to support vaccine delivery, outbreak response, community engagement, and implementation and maintenance of polio eradication programs in affected regions.

This extension comes at a critical time. Over the past year, we have seen wild polio case numbers rise in the last endemic countries, Afghanistan and Pakistan. And the detection of polio in places that were previously poliofree is a stark reminder that polio anywhere is a threat to people everywhere. While transmission overall remains low, our hard-won progress is at risk. Reductions in global aid, vaccine misinformation, and rising conflict and political instability are all contributing to polio's continued spread.

The Autumn Ghost — the book where all these polio stories appear — Hannah Wunsch



**Poliomyelitis** is a viral disease.

The **virus** enters through the mouth and multiplies in the throat and gastrointestinal tract, then moves into the bloodstream and is carried to the central nervous system where it replicates and destroys the **motor neuron** cells. Motor neurons control the muscles for swallowing, circulation, respiration, and the trunk, arms, and legs.

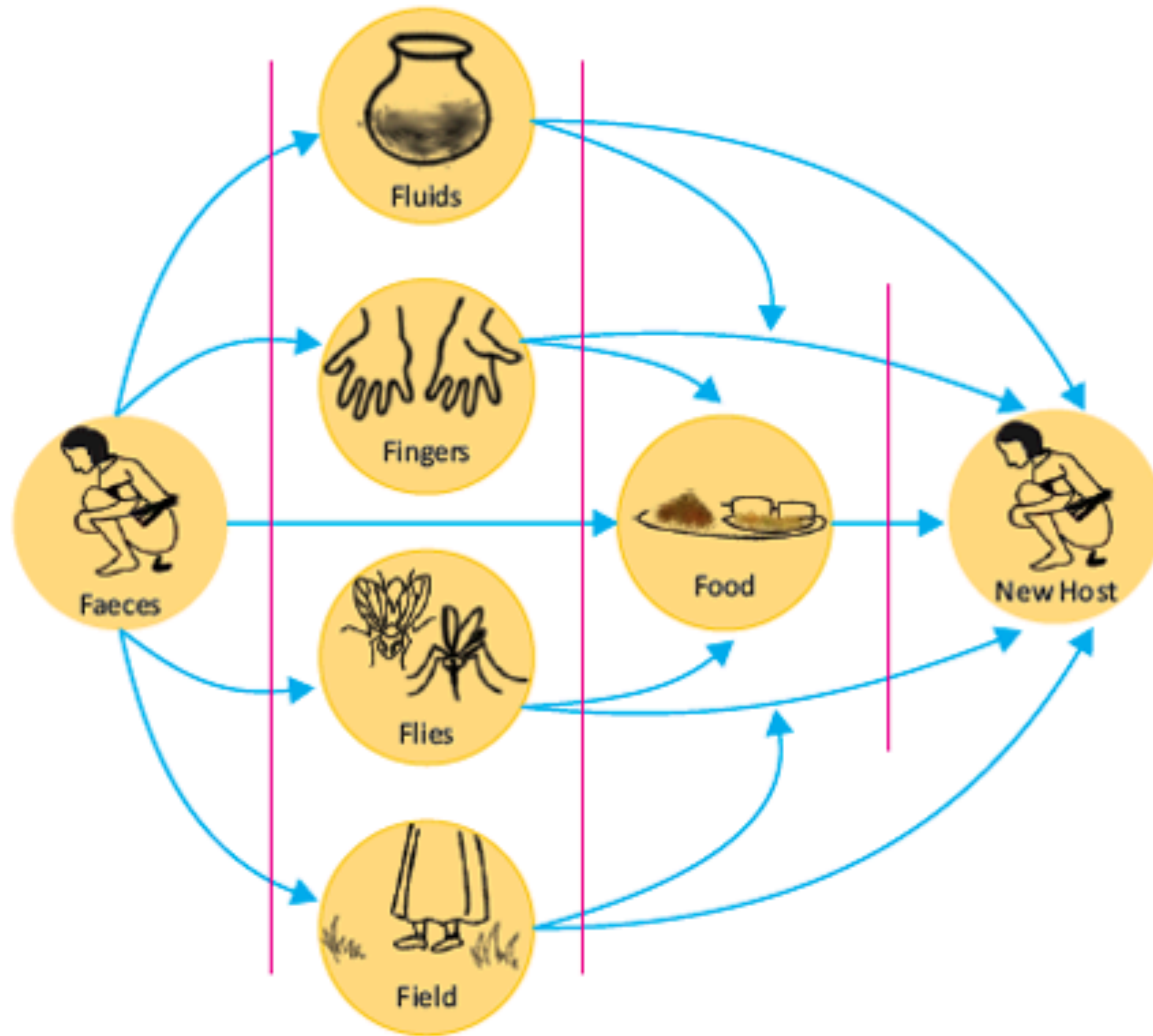
Many types of human cells have receptors that fit the poliovirus; no one knows why the virus favors motor neurons over other cells for replication.

For every 200 or so virus particles that encounter a susceptible cell, only one will successfully enter and replicate.

In tissue culture, poliovirus enters cells and replicates in six to eight hours, yielding 10,000 to 100,000 virus particles per cell.

There are three types of poliovirus: 1, 2, and 3. Type 1 is the most virulent and common. Both the Salk and Sabin vaccines are “trivalent” that is, active against all three virus types. Type 2 & 3 poliovirus has not been detected anywhere in the world since 2021.





***F-diagram/ Faecal-oral route that causes Polio and Diarrhea.***



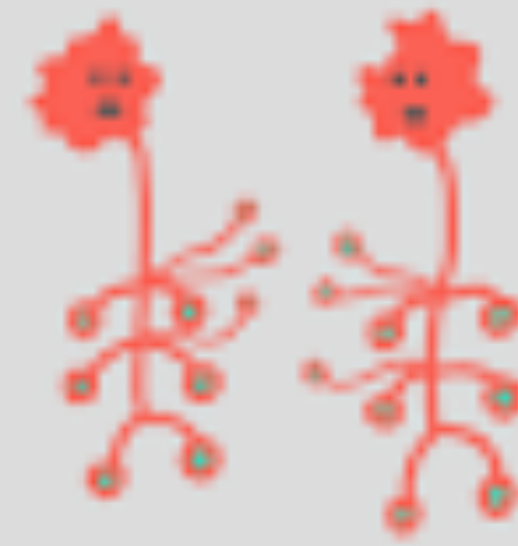


**Normal**



**Acute Polio**

Nerves killed by  
Polio Virus



**Recovery**

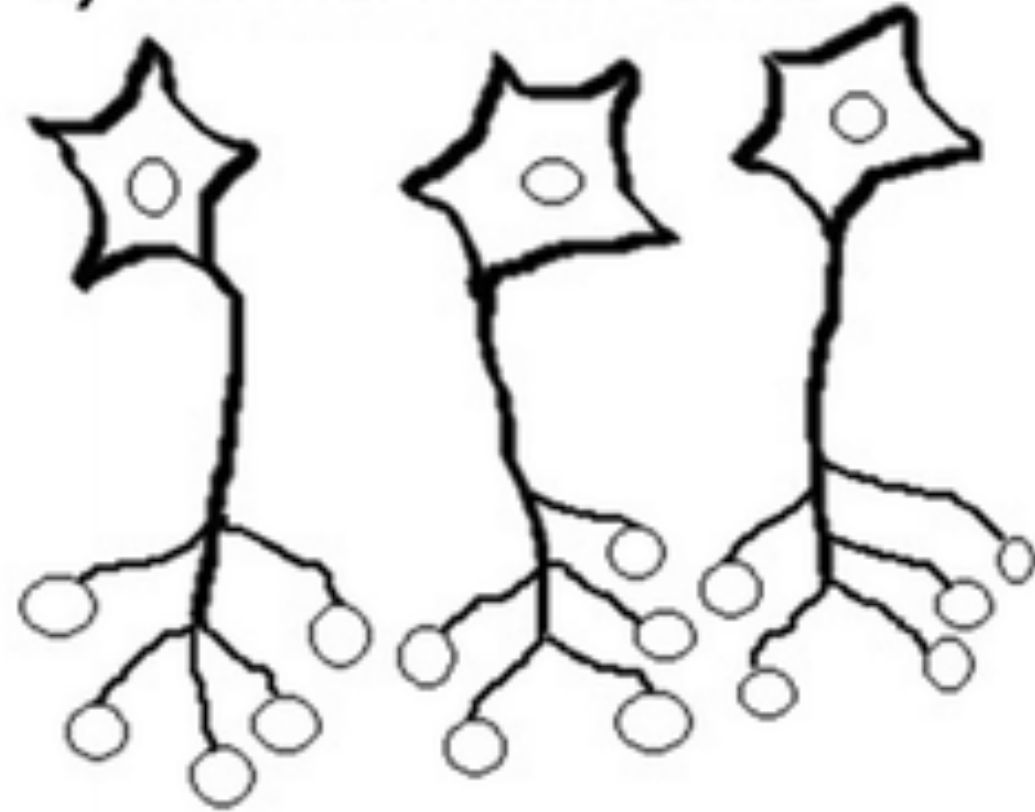
Nerves grow extra roots to  
reinnervate muscle fibres



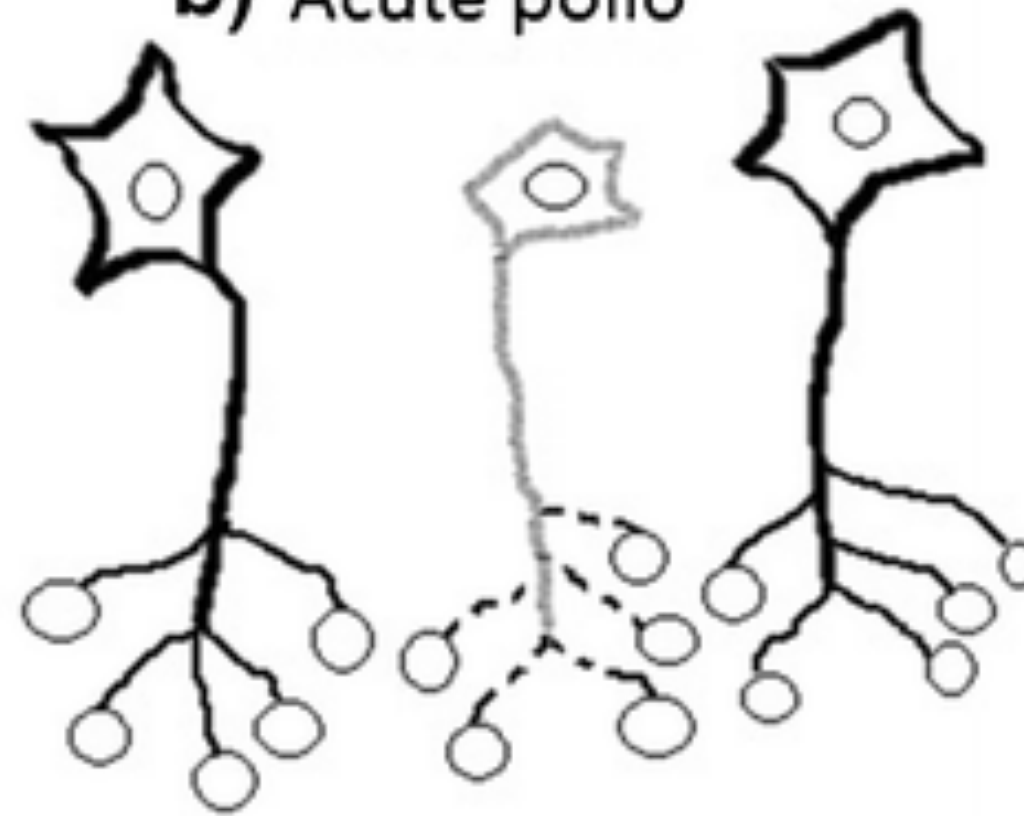
**Post-Polio  
Syndrome**

One explanation is that  
these extra nerves are  
dying off.  
Less nerve supply,  
less functional ability

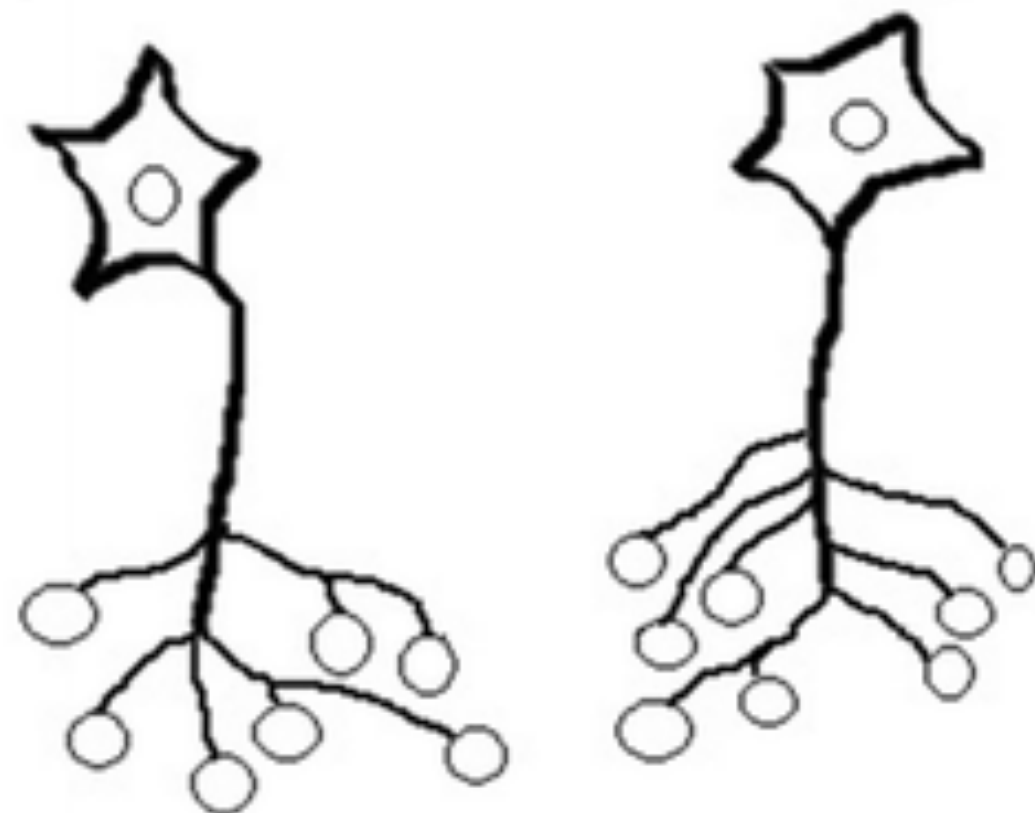
**a) Normal motor units**



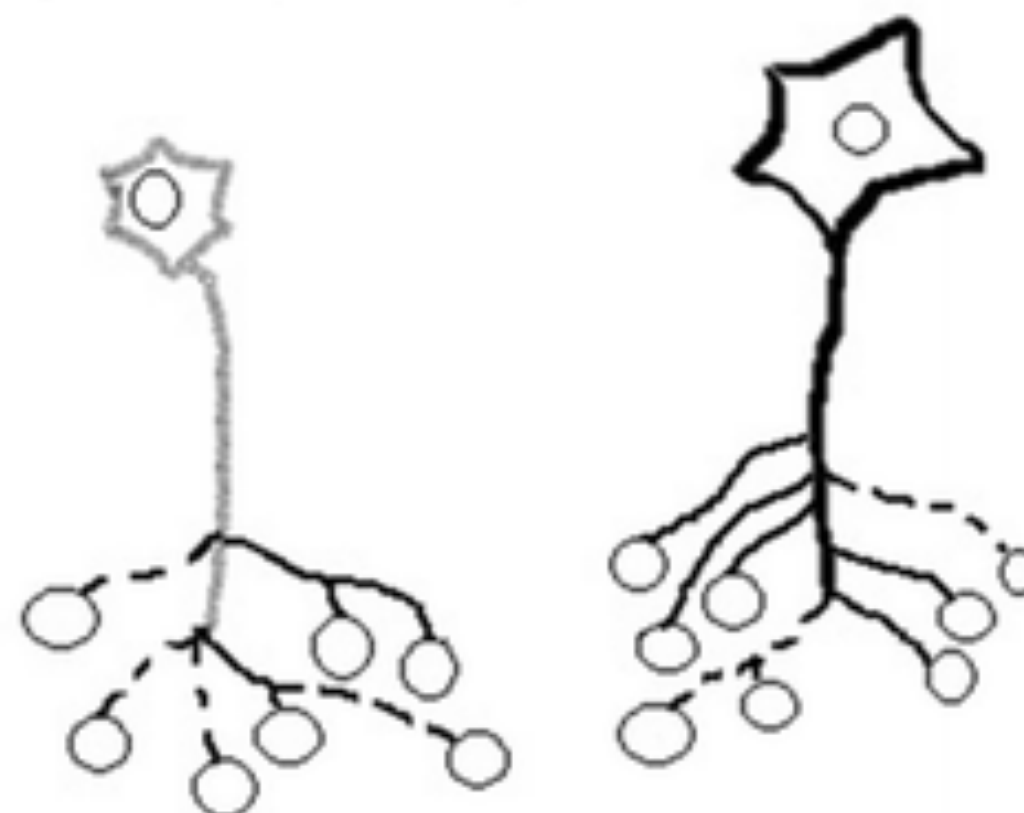
**b) Acute polio**



**c) Reinnervation & recovery**



**d) Post-polio syndrome**





Egyptian priest from  
3500 years ago.





# 1952 POLIO PRECAUTIONS

**DON'T**  
MIX WITH  
NEW GROUPS



**DON'T**  
GET CHILLED



WHEN  
**POLIO**  
IS AROUND

**DON'T**  
GET OVERTIRED



**BUT DO**  
KEEP CLEAN



RECOMMENDED BY THE NATIONAL FOUNDATION FOR INFANTILE PARALYSIS



Last February, this photo of a post-polio man who probably had polio 15 or more years ago ... he's been crawling and begging ever since. This is what we are working to avoid, prevent and the disease we work eradicate. However, the post-polio victims (called "crawlers" in Africa, S. Central Asia and Central America) will need help for decades to come.







For the crawlers, the main cause of premature death, other than starvation, is snake bite.





**Figure 5-A** This patient demonstrates bilateral exco-



**Figure 4-B** This patient demonstrates a weakly flexed knee joint and foot applied to bring the patient to a more upright position.



**Figure 4-C** Orthotic correction designed to provide partial, functional gait correction.



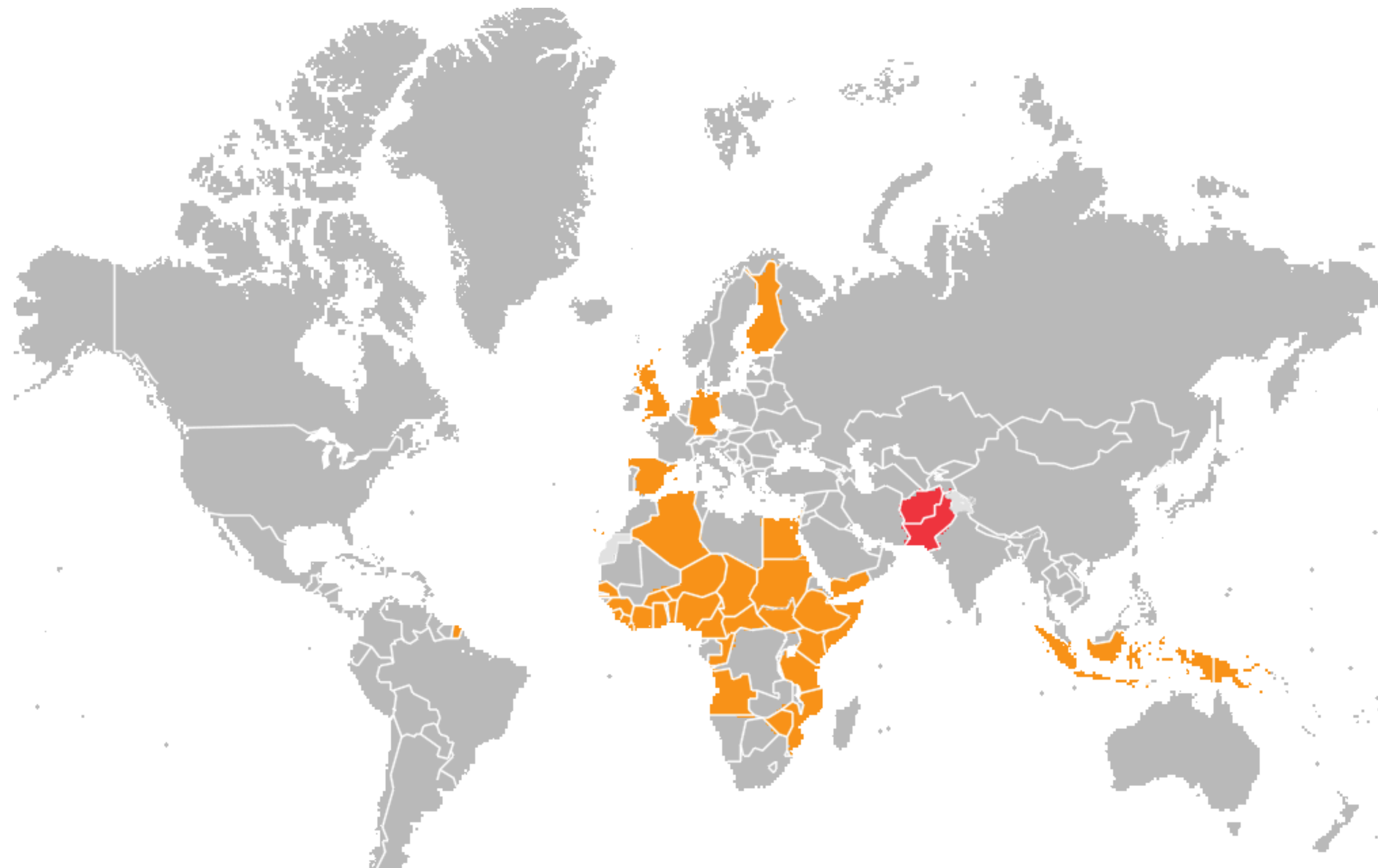








- Red is endemic, orange is outbreak.
- Security concerns in Pakistan and Afghanistan and limited access to conflict zones have inhibited population-wide vaccine administration. Nigeria's efforts are still crippled by a lapse in coverage in 2003, when government distrust led to a boycott of the federally sponsored polio immunization campaigns in several Northern Nigerian states. The country has made progress in reestablishing their health coverage. Unfortunately, Nigeria has exported the virus to its neighbors.





In 2022, as of August 9 there have been 19 cases of wild type strain 1 infections (Pakistan and Afghanistan) and 223 cases due to circulating vaccine derived oral type 2 poliovirus. This year 2022, vaccine derived polio has been reported in 15 countries. There have been four wild-type 1 cases reported in Mozambique related to a strain from Pakistan. Vaccine-derived poliovirus type 2 has spread to cities in other countries including New York and London (Box 17.1)<sup>14</sup> previously polio-free African countries have had cases of imported poliovirus, with Angola, Chad, the DRC, and Sudan.



 Data as of 6 Oct 2025

Global Wild AFP cases and environmental samples 2018-2025



▲	Source	Wild virus type 1 confirmed cases							Wild virus type 1 reported from other sources <sup>2</sup>										
	Period	Full year total					01-Jan - 07-Oct <sup>1</sup>		Date of most recent virus	Full year total						01-Jan - 07-Oct <sup>1</sup>		Date of most recent virus	
	Year	2020	2021	2022	2023	2024	2024	2025		2018	2019	2020	2021	2022	2023	2024	2024		2025
Afghanistan		56	4	2	6	25	23	6	10-Sep-2025	86	66	43	1	22	62	124	95	53	24-Aug-2025
Pakistan		84	1	20	6	74	42	29	30-Aug-2025	139	391	438	65	41	127	649	438	452	29-Aug-2025
Islamic Republic of Iran											3								20-May-2019
Malawi			1						19-Nov-2021										
Mozambique				8					10-Aug-2022										
TOTAL (TYPE 1)		140	6	30	12	99	65	35		225	460	481	66	63	189	773	533	505	
Tot. in endemic countries		140	5	22	12	99				225	457	481	66	63	189	773			
Tot. in non-end countries			1	8							3								
No. of countries (infected)		2	3	3	2	2				2	3	2	2	2	2	2			
No. of countries (endemic)		2	2	2	2	2				2	2	2	2	2	2	2			
Total Female		59	2	10	4	43				2	3			1		2			
Total Male		81	4	20	8	56					8					5			



**Herd immunity can be achieved if 95% of the population is vaccinated.**

**In Alberta only 76% of the population is vaccinated against polio!**