



POLIO

THE IDEA

Polio is caused by a virus which can leave a child weak and disabled. It is spread through faeces, or coughing and sneezing. It can leave limbs paralysed, and cause muscles to shorten or contract so that joints cannot be straightened or, in some cases, cannot be bent. Arms and legs that are paralysed, and backs that are twisted and weak can never be cured, but the healthy muscles can be taught to make up for the damaged ones.

Children can help to build up muscles damaged by polio. They can spread the message that polio can be prevented by immunisation.

The physical disability need not affect the child's overall physical, mental and social development, and other children can be friendly and help provide opportunities for her to lead an active life and take part in their activities, including play, work and study.

What is polio?

Polio is a disease which can sometimes injure the muscles of the body. When children get polio, they may have a fever and signs of a bad cold or flu for some days. While they have fever, they need to rest very quietly. Sometimes the fever is very slight, and it is almost impossible to know that the child is suffering from an attack of polio. Not all fever leads to polio BUT if children have fever and then become weak in the arms, legs or back, they must be taken to the doctor or health worker.

In some cases, the child just seems to have a cold and there are no permanent effects, but in severe cases children who have had polio may permanently lose the strength in some of their muscles. One or more limbs – arms and legs – may be paralysed, and the

spine or backbone may become twisted. The bones and muscles of the damaged limb become thinner than the other limb and do not grow as fast. The unaffected limbs may become stronger to compensate.

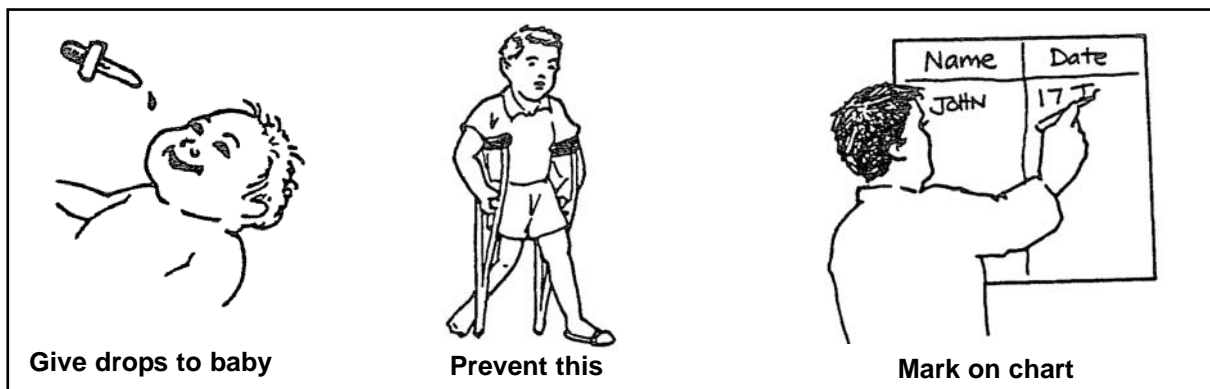
Preventing polio

Polio can be prevented. The most important thing that children can do is to make sure that everyone they know has been protected from polio by immunisation. When a child is given a vaccine (immunised), the body makes 'soldiers' (we call them antibodies). These 'soldiers' attack the germs when they get into the body and kill them before they cause the disease. (See Activity Sheet 6.4 **Immunisation**. This sheet explains all about the different vaccines, how they work and the ages when they should be given.)

Where and how these activities have been used

The use of this sheet is usually restricted to special programmes on disability, or linked with immunisation campaigns. In certain countries and areas where polio is very widespread, e.g. India, Indonesia and Malawi, this sheet becomes a special priority. The immunisation message is vital. Immunisation can defeat polio. A special programme has prevented any new cases of polio in North and South America for at least three years.

The Child-to-Child reader **I Can Do It Too**, and the book, *Disabled Village Children*, supplement this sheet. Practical work on the making of crutches – aids for those with disabilities – can be undertaken in school or college handwork periods.



Usually children are immunised by swallowing a few drops of a liquid vaccine (Oral Polio Vaccine). In some cases injections are used. Both methods work very well, but must be given by trained health workers who know how to look after the vaccine, and make sure that it is strong enough. The vaccine often has to travel thousands of miles before it is given to the children, and this may take some months. The vaccine must be kept cold all the time or it will not work properly.

Children must have four doses of the oral polio vaccine. The doses should be given at the following ages: at birth, and at **6, 10 and 14 weeks**.

Older children can make sure that younger ones receive all four doses so the child will be properly protected against polio. If a child who is given the vaccine has diarrhoea, fever or a cold, the vaccine may not work so well, so the child should be given an extra dose four weeks later.

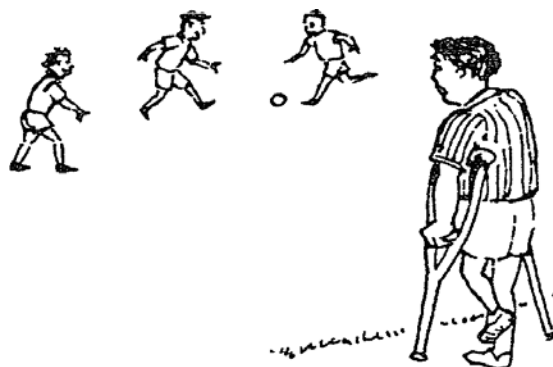
Helping a child who is paralysed

Children can help other children with disabilities due to polio, especially by telling their friends that there is nothing wrong with the child with polio, except weak muscles. Their minds and feelings are not affected. The child who has had polio will still be able to do many things that the other children can do. There are many things they can do together. They can play and work together just like any children do.

It is also very important to discover ways of getting the child to school. They may be just as intelligent as any other child, and needs to be stimulated like them.

Limbs that are paralysed by polio will never become strong again, BUT other muscles in the paralysed limb can be taught to work better and to do at least part of the job that the paralysed muscles can no longer do. Older children can help those who have had polio to do exercises, after they have been shown how to do them by a trained health worker. Exercises of the right kind can help to prevent the child's body becoming deformed or crooked.

Most of all, children can help children with disabilities by including them in their activities. All children learn and grow through play. They learn faster if they are part of a group, and if exercises are made into games. Play games with the child with polio, read and talk together. Be friends!



Activities

Preventing polio from spreading

Everyone must be immunised

- Check to make sure that each child has been correctly immunised against polio. The children can make a chart for the wall with the names of all the children who live near them, and find out if they have been vaccinated. When they have been vaccinated, they can put a tick beside the name. The aim is to have a tick beside every name. If the children are not sure, they can ask their mothers to look on their health clinic card.
- Any child who has not been immunised should be encouraged to do so as soon possible. What about brothers and sisters – have they been immunised?
- Find out from health workers when the immunisation can be done, and encourage mothers and fathers to make sure that all the children in the family have been immunised properly.
- The children can carry out a campaign in the community with placards informing everyone of the necessity of polio vaccine, and the times when they can be vaccinated.
- The children can do a play for the community with the polio monster who is defeated by the vaccine as part of the campaign.
- Keep reminding those who have not been immunised, and work towards having a mark against everyone's name.

Older children can help younger ones who may be frightened of having the immunisation. They can:

- explain that polio vaccine is usually given in the form of drops and therefore does not hurt.
- go to the clinic with the younger ones, and comfort them if they feel frightened.
- play games with them while they wait at the clinic and make sure that the younger children are taken back to the clinic for

two more doses. This is very important because the protection will be less if any doses are missed.

Working with health workers

Older children can help health workers make sure that the vaccine is kept cold and works properly by cooperating with them when they come to immunise children. They can:

- watch that the electricity is working.
- make sure that the health worker is told at once if the electricity stops, as this may make all the vaccines in a refrigerator useless.
- make sure that the vaccine is safe in a cold box, if there is no electricity, and that all cold boxes are kept in a cool place.

Children can work together before the arrival of the health worker by making posters and plays, songs and dances which tell about the immunisation programme, and encourage all families to make sure that all children are protected.

Immunisation is urgent. All immunisations should be completed in the first years of the child's life.

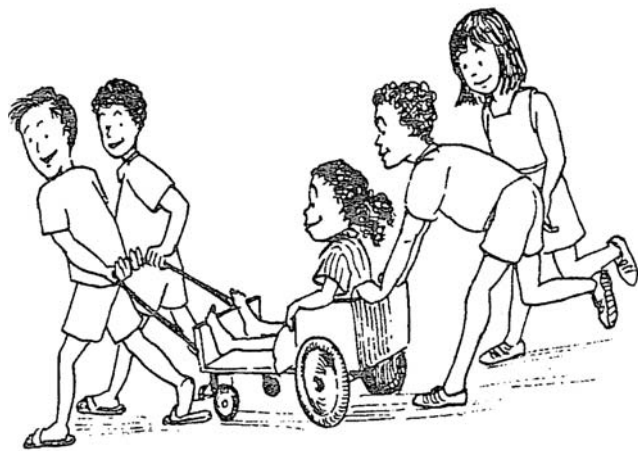
Helping the child with disabilities

Contractures These occur when some muscles become shorter, causing the limb to become deformed. The joint is not able to move as well as before. In some cases it is difficult to straighten the joint and in other cases to bend it. Most contractures can be prevented through exercises and other measures. It is far easier to prevent contractures than correct them. Correction can take a long time and be uncomfortable or even painful, but this may be necessary before a child can walk or look after himself. **Older children can help prevent or correct contractures.** Some ways of doing this, suggested in a book *Disabled Village Children* by David Werner, are shown on the following page. If you require more information on this subject, we suggest you read this excellent book.

Exercises Doctors or trained health workers can teach older children to work at home with children whose bodies have been damaged by polio. When a child has polio, he needs rest and good food at first but then he should be examined by a health worker to see what exercises are suitable and how much strength the child can regain, and how.

Older children can help paralysed children to do exercises to regain their strength. It is always easier to do exercises if they are made into a game, and it is more fun for the child with disabilities if they can do the exercises with the help of other children. This makes them get stronger faster. It is also a great help to the parents who may sometimes be tired.

Equipment The doctor or health worker may decide that the child with a disability has enough muscle power to learn to walk. The child must therefore practise walking regularly. Older children can build rails



outside the house to help the child take exercise and to begin using the different muscles in their legs.

Older children can also make a simple crutch, or cut a stick to help the child to walk. They can hang a rope over the bed, so that they can pull themselves up if they are not strong enough to sit up by themselves.

Being friends Children can remember to include children with disabilities in their own play and work as much as possible. If a brother or sister is small and cannot walk, the older children can find a way of carrying them with them, of taking them to school, and including them in their games.

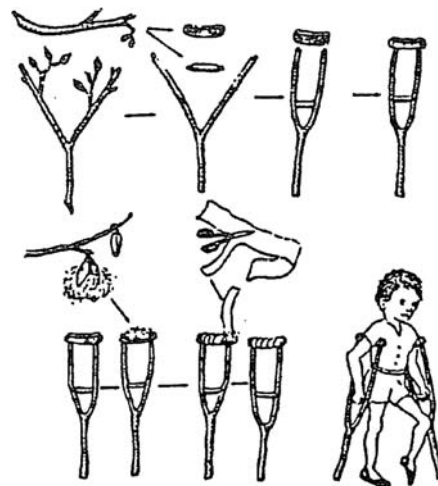
If the children with disabilities are bigger, the older children can make a trolley, or perhaps the local carpenter can make a wheel-chair with bicycle wheels. The older children can help to move the chair or trolley around.

Follow-up

After one or two months, quiz the children to see if they remember the important points about polio: What are the symptoms? Why is it dangerous? How can we prevent it? How can we help those who have been affected by it?

During the year, keep checking to make sure that every child in the class or group has been immunised against polio. Does the wall chart have every child's name on it?

Have the children been able to identify and help a child who has disabilities due to polio? If so, what have they done to help? Have they helped with exercises? With equipment? By being friends? What problems have they overcome? Have they been able to help the child over a long period of time, so that their help has made a difference to the child as well as the child's family?



Crutches can allow a child to walk and can easily be made from locally-available materials.

USING THIS SHEET

Teachers can explain how immunisation protects the body, as part of the health or science lesson.


Health workers can advise parents and show how to make simple aids.

Children can make health cards and remind others of immunisation dates. They can help polio victims to do exercises, and make equipment for them to use.

Preventing contractures developing Family members can help prevent or correct contctures by putting the child with polio in a good position and doing exercises with them. Look for ways to do this during day-to-day activities: lying, sitting, being carried, playing, studying, bathing and moving about. Contractures can develop quickly, so early positioning is very important.

Think of ways to help the child stay in positions which will help prevent contractures developing.


CORRECT



Put a pillow between legs to hold knees apart.


Lying and sleeping straight helps prevent contractures.

CORRECT




Also use pillows for side-lying to keep a good position.

WRONG



Lying and sleeping with the legs in a twisted or bent position causes contractures.



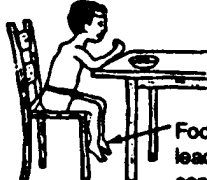
Letting feet hang over the edge helps prevent ankle contractures.

Lying part of the time face downward helps stretch hips backward.

A pillow here helps stretch knees.


A child who spends most of the time sitting should spend part of the day lying or standing (on a frame if necessary). This will prevent contractures of the hips and knees.

WRONG




Foot hanging can lead to tiptoe contractures.

BETTER



foot lifts

BEST




child-sized furniture


It is best if the hips, knees and ankles can be kept at right angles, so try and arrange furniture, etc. to keep them in this position. Furniture of the right size is best, but feet can be held in the right position with the help of boxes and other supports.

The child does the exercise - during normal daily activities

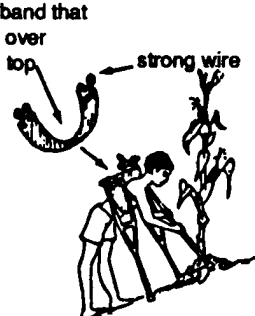
Figure out ways or aids so that the child can take part in ordinary activities that stretch muscles and prevent contractures.



standing and walking uphill to stretch heel cords




picking vegetables




chest band that hooks over crutch top

strong wire



sewing on a machine can exercise foot and combat contractures



bar that permits child to squat and bend ankles

Disabled Village Children by David Werner and *Activity Street 5.1 Children with Disabilities* suggest many other ways in which children can help children with disabilities.