

# HOW TO PREVENT AND TREAT DEHYDRATION

## Introduction

Dehydration is a loss of body fluid, which is not compensated for by sufficient fluid intake. It is not a disease but a symptom of other diseases. Mainly dehydration develops by infections causing vomiting and diarrhoea. Another cause is malnutrition. About one out of every ten children born in developing countries dies of diarrhoea before reaching the age of five.

Since so many diseases can cause dehydration it is very important to know more about treating dehydration. With this knowledge we can also inform the mothers of small children how to prevent this serious condition. The combination of diarrhoea and vomiting increases the danger of dehydration.

Formerly dehydration was mostly treated with intravenous infusion. For this treatment you need infusion sets and there is always the danger of contamination. In the early sixties in a refugee-camp it was found that drinking a solution of salt and sugar was saving a lot of people from death through dehydration. In mild and moderate cases the oral treatment has proven to be more effective than the intravenous infusion. Nowadays the health workers generally know about the possibilities to treat and prevent dehydration with the Oral Rehydration Salts for which you can find the preparation guidance in the appendix.

## DIAGNOSIS AND TREATMENT OF DEHYDRATION

<b>ASSESSMENT CHART</b>			
<b>ASK ABOUT:</b> Diarrhoea Vomiting Thirst Urine	0 - 3 liquid stools None or small Normal Normal	4-10 liquid stools Some Above normal Little and dark	≥ 10 liquid stools Very frequent Unable to drink No urine for 6 hrs
<b>LOOK AT:</b> Condition Tears Eyes Mouth Breathing	Well alert Present Normal Wet Normal	Sleepy or irritable Absent Sunken Dry Faster than normal	Sleepy, unconscious, fits Absent Very dry and sunken Very dry Very fast and deep
<b>FEEL:</b> Skin Pulse Fontanel	Pinch goes back quick Normal Normal	Pinch goes back slow Faster Sunken	Pinch goes back very slow Very fast and weak Very sunken
<b>WEIGT LOSS:</b>	25 grams per kilo	25-100 grams per kilo	≥100 gram per kilo
<b>DECIDE:</b>	<b>No dehydration</b>	<b>2 or more signs: Some dehydration</b>	<b>2 or more signs: Severe dehydration</b>
<b>TREATMENT:</b>	<b>PLAN A</b>	<b>PLAN B</b>	<b>PLAN C</b>

<b>TREATMENT:</b>	<b>PLAN A</b>	<b>PLAN B</b>	<b>PLAN C</b>
<b>Fluids</b>	More than usual to Prevent dehydration.	According to thirst	If possible, nasogastric tube
<b>Breastfeeding</b>	Continue	Continue	Impossible
<b>ORS-solution</b>	+ (50-100 ml after each stool)	Every 1-2 min 1 spoon full	Impossible
<b>Food</b>	Every 3-4 hrs	Every 3-4 hrs (pieces)	Impossible
<b>Refer to clinic</b>	No	No	Yes

A child who dies from diarrhoea mostly dies from dehydration and not from the diarrhoeal disease as such. Therefore it is important to rehydrate the child.

A patient with diarrhoea and vomiting can lose up to one litre of fluid in one hour. In order to reach normal daily requirements, a patient needs his normal daily intake plus replacement for any further loss through diarrhoea and vomiting.

The most important rules to treat dehydration are:

- ALWAYS look for signs and symptoms of dehydration.
- If there are still such signs and symptoms, CONTINUE with rehydrating the child.
- If there is no improvement and the dehydration becomes severe, REFER the child.

### **PLAN A: PREVENT DEHYDRATION**

Give the NORMAL daily requirement of fluid PLUS replacement for any further loss through vomiting or diarrhoea.

Replace after every stool:

<b>child less than 2 years old</b>	<b>child older than 2 years</b>	<b>adults</b>
50-100 ml ORS 1/4 to 1/2 large cup	100-200 ml ORS 1/2 to 1 large cup	as much as they want
give with a spoon	drink	drink

NOTE: After vomiting, always continue giving ORS. Wait 10 minutes and give the solution more slowly (one spoonful every 2-3 minutes).

## PLAN B: TREAT DEHYDRATION

Weigh the child, to know the amount of ORS fluid. When weighing is not possible, estimate the age of the child.

<b>Patients weight in kg</b>	3-5	6-9	10-12	13-19	20-40	>41	
<b>Age</b> (use only when weight is unknown)	2-8 month	8-18 month	2-4 year	4-8 year	8-15 year	adult	
<b>Give this much ORS solution for 4-6 hours</b>	In ml	400	600	800	1000	2000	4000
	in cups	2	3	4	5	10	20
	Give every: In spoons:	5 min 1 tea spoon	10 min 1 table spoon	7 min 1 table spoon	5 min 1 table spoon		
1 cup = 200 ml 1 teaspoon = 5 ml 1 table spoon = 15 ml	After 4 to 6 hours, reassess the child using the Assessment Chart. If the child still has 2 or more Signs of some dehydration (=B), continue treatment.						

Note:

After reassessment, if the child is still dehydrated, tell the mother to continue breastfeeding. Or if she does not breastfeed, give 100-200 ml of clean water before continuing ORS