

# DOCTORS WITHOUT BORDERS IN ACTION—TREATING MALNUTRITION



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## MOBILE CLINICS

In areas where access to treatment centers and health care is limited, field workers travel to isolated communities to provide general check-ups, as well as nutritional health and hygiene education.



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## REGISTRATION

Every child that comes to a treatment center is registered upon arrival. A registrar writes down the child's details, which may include their name and age, their mother's details, and the name of their village.

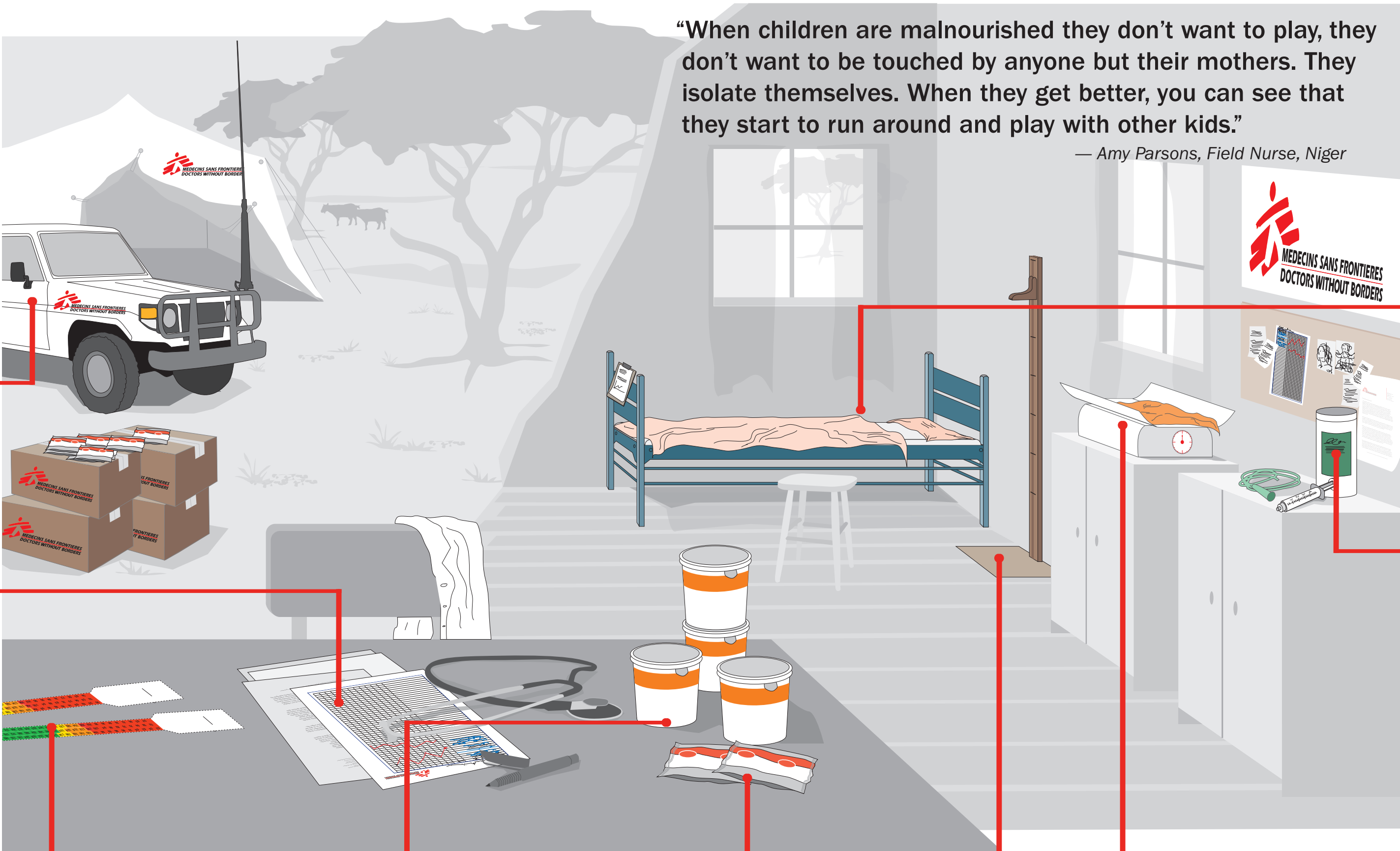


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## IDENTIFYING MALNUTRITION

The MUAC bracelet—a plastic band with a color-coded gauge—is used to quickly assess whether a child under five years of age is malnourished.

With the help of our supporters, these are some of the tools we use to fight malnutrition.



"When children are malnourished they don't want to play, they don't want to be touched by anyone but their mothers. They isolate themselves. When they get better, you can see that they start to run around and play with other kids."

— Amy Parsons, Field Nurse, Niger



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## INPATIENT NUTRITION CENTERS

Children who have severe acute malnutrition, or who also suffer from an infection or other disease, may need to be hospitalized to receive highly specialized inpatient care at one of our nutrition centers.



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## THERAPEUTIC MILK

Severely malnourished children who are unable to eat on their own are given therapeutic milk in the treatment center, delivered through a nasal-gastric tube or syringe.



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## PREVENTION

As a preventive measure, children at risk of malnutrition can be sent home with rations of ready-to-use supplemental food.



© Julie Remy

## READY-TO-USE THERAPEUTIC FOOD

Ready-to-use therapeutic food (RUTF) is administered to children diagnosed with severe or moderate malnutrition, unless they are in such a serious condition that they need to be hospitalized.



© Sven Torfinn

## MEASURING HEIGHT

Children who are moderately or severely malnourished also have their height measured to calculate their height-to-weight ratio.



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## CHECKING WEIGHT

Moderately and severely malnourished children are weighed and checked for signs of edema, a symptom of malnutrition that causes swelling.



# MALNUTRITION



RESPONDING TO A MEDICAL CRISIS

## A GLOBAL ISSUE



### A DEVASTATING CONDITION WITH LONG-TERM IMPACT

Malnutrition is a life-threatening medical condition, caused by a diet lacking in essential proteins, fats, vitamins, and minerals. In many countries, malnutrition is prevalent due to failed harvests caused by environmental disasters such as floods and droughts, and soaring food prices. These factors combine to make the cost of purchasing nutritious foods impossible. As a result, children are denied the nutrients they need to grow and be healthy.

## WHY WE NEED YOUR SUPPORT



“Eating millet porridge every day is the equivalent of living off bread and water. With luck, toddlers here might have milk once or twice a week. Young children are so susceptible to malnutrition because what they eat lacks essential vitamins and minerals to help them grow, remain strong, and fight off infection.”

— Dr. Susan Shepherd,  
Doctors Without Borders pediatrician



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## THE CRITICAL WINDOW



Malnutrition contributes to at least one-third of the eight million annual deaths of children under five years of age.

Children between six months and two years of age are most at risk.

Doctors Without Borders/Médecins Sans Frontières (MSF) has a particular focus on this age group, because if a child does not have access to a nutritious and balanced diet when the mother starts supplementing breast milk with other foods, their physical growth and mental development can be permanently impaired.

## DELIVERING EXPERT MEDICAL SOLUTIONS



### THE DEBILITATING EFFECTS OF MALNUTRITION

When left untreated, malnutrition can lead to death or many health issues, particularly in babies and young children. They can suffer stunted growth, blindness, and impaired mental development if malnutrition is not detected and treated in time. Malnourished children are also at higher risk of dying from treatable illnesses like measles, upper respiratory infections, or diarrhea as a result of their weakened immune systems.

### THE POWER TO HEAL IN THE HANDS OF MOTHERS

Since 2005, the most effective tool for saving malnourished children’s lives has come in a small airtight foil packet that costs only 33 cents. Ready-to-use therapeutic food (RUTF) is a peanut butter-like paste that contains fortified milk powder and delivers the 40 essential nutrients that can bring a child back from the verge of starvation.

Before RUTF, Doctors Without Borders had to hospitalize severely malnourished children for weeks. Now our teams provide mothers with packets of RUTF to heal their children at home. Most malnourished children treated with RUTF recover in six weeks without ever being hospitalized.

### HOSPITAL CARE FOR THE SICKEST CHILDREN

Severely malnourished children who have no appetite—or who suffer from malaria, pneumonia, or other diseases—are admitted to our inpatient centers for intensive, round-the-clock medical treatment. These children are at the greatest risk of death. But with proper care, most do survive and can be rapidly discharged to an outpatient program.

### PREVENTING MALNUTRITION—CARE BEYOND CRISES

Doctors Without Borders advocates for making nutritious, age-appropriate foods a critical part of infant mortality prevention programs. When Doctors Without Borders and our partners in Niger provided nutritional supplements to young children at risk of malnutrition in the fall of 2010, we documented a 50 percent lower death rate among children who received the milk-based, fortified paste.

## IDENTIFYING MALNUTRITION



### THE MUAC BRACELET

In a nutritional crisis, Doctors Without Borders teams must quickly assess which children are at greatest risk of dying from starvation. We do this by measuring the mid-upper-arm circumference (MUAC) of at-risk children with a color-coded bracelet. Readings in the red zone of 115 mm or less indicate severely malnourished children who need immediate treatment.

On the right is an example of a MUAC used in the field (not printed to scale).



### WHAT IT TELLS US:

#### Severe acute malnutrition

**MUAC RESULT RED:**  
less than 115 mm (severe malnutrition and threat of death)

- very low height-to-weight ratio
- visible severe wasting\*
- presence of nutritional edema (fluid in the feet—up to the face in severe cases)

#### Moderately malnourished

**MUAC RESULT ORANGE:**  
115-124 mm (moderate malnutrition)

- low height-to-weight ratio
- signs of wasting\*

#### At risk of malnutrition

**MUAC RESULT YELLOW:**  
125-134 mm (risk of malnutrition)

- medium height-to-weight ratio
- initial signs of wasting\*

#### Not at risk of malnutrition

**MUAC RESULT GREEN:**  
more than 135 mm (normal)

- acceptable height-to-weight ratio
- appetite for food
- no signs of wasting\*

\*Wasting is when a child’s body becomes emaciated and atrophied from malnourishment.