



# Project Play: Turning cardboard packaging into toys

unicef   
for every child

Supply Division



## Overview

### The challenge

Play is critical for healthy childhood development, helping build cognitive, social and physical skills. It is also an essential part of severe acute malnutrition treatment, with the [World Health Organization \(WHO\) recommending 15-30 minutes of play stimulation per day for recovery](#). However, many children enrolled in malnutrition treatment do not have access to relevant toys. Many caregivers are also not aware of the importance of play.

Each year, UNICEF delivers thousands of tons of ready-to-use therapeutic food (RUTF), a fortified, peanut paste for treating malnutrition in children under five. In 2021, 3.5 million RUTF cardboard boxes circulated the world. There is an opportunity to recycle these boxes into relevant and fun toys.

UNICEF is also working to address climate change through sustainable procurement across all supplies. Our environmental impact has consequences for children, their future and planet they will inherit.

### The response

UNICEF will print and pre-cut toys on the flaps of corrugated cardboard cartons, recycling boxes into toys for malnutrition recovery and learning through play.

In 2021, a design institute was contracted to create a range of toys which help develop cognitive, motor and social skills in children aged six months to five years. All toys have inclusive elements (contrast colours, tactile features, easy to grip) so children with and without disabilities can play with them. How-to-use guides will be included for adults building the toys, and crayons ideally provided so children can colour them in.

There are three applications of Project Play:

**1. Malnutrition recovery:** Toys will be printed on RUTF boxes to support the recovery of children through play stimulation, maximizing impact with almost no additional cost or shipping needs.

**2. Emergency response:** Toy designs will be printed on flat pieces of cardboard shipped to or printed at child-friendly spaces and [Blue Dots Hubs](#) in conflict or disaster zones. Play provides a sense of routine for children in crises, helping them feel safe.

**3. Learning through play:** UNICEF will explore adding toy designs to all packaging to support early childhood development. As a public good, UNICEF will also publish all designs online so other organizations can benefit from this innovation.

In late 2022, Project Play will be trialed in several countries in existing UNICEF-supported health centres providing RUTF treatment to prove and refine the concept.

### The impact

Through this frugal innovation UNICEF will supply simple, yet effective toys to children with severe acute malnutrition, increasing the likelihood of recovery. By providing toys and 'how-to-use' guides UNICEF can also raise awareness of the importance of play. Recycling packaging and giving cardboard boxes a second life also limits waste, contributing to a more sustainable future.

If scaled, this project could reach up to five million children per year – [the number of children who received UNICEF-supported malnutrition treatment and care in 2021](#). If toy designs are added to the packaging of more supplies, UNICEF could potentially reach tens of millions of children per year.

## Key figures

### Issue

**15-30 minutes**

[WHO recommends 15-30 minutes of play stimulation per day for malnutrition recovery.](#)

**3.5 million**

[In 2021, 3.5 million cardboard boxes circulated the world as part of RUTF packaging.](#)

**80 per cent**

[UNICEF procures almost 80 per cent of the world's RUTE.](#)

**70 countries**

[UNICEF delivered 46,000 tons of RUTF to 70 countries in 2020 predominantly in WCAR, followed by ESAR and ROSA.](#)

### Impact

**5 million children**

[UNICEF could reach an estimated 5 million children with toys to support malnutrition recovery.](#)

**Tens of millions**

[If expanded to more supplies, UNICEF could potentially reach tens of millions of children with toys to aid development and lay a foundation for life-long learning.](#)



## Project Play: Turning cardboard packaging into toys

### While it may sound like fun and games, play is a critical part of healthy childhood development.

The first five years of life are a critical period of brain growth in every child, with learning taking place at a speed that will never be equaled. Through play children build cognitive and motor skills and learn through experimentation – figuring out how the world works for themselves. As they play together it also teaches social skills, including leadership and group skills.

When a child is malnourished, the lack of nutrients affects both their body and their brain, and it can halt critical cognitive development. By providing toys and encouraging play UNICEF can help ensure children’s brains begin to recover, in line with WHO recommendations. Just like our bodies, brains also need exercise to build back strength. The presence of toys will also help UNICEF raise awareness of the importance of play among caregivers.

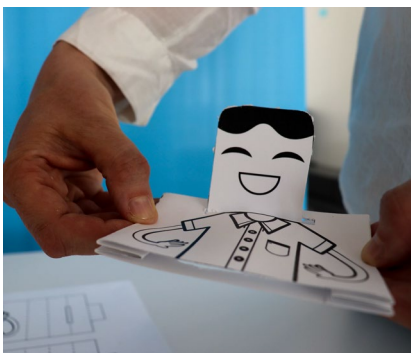
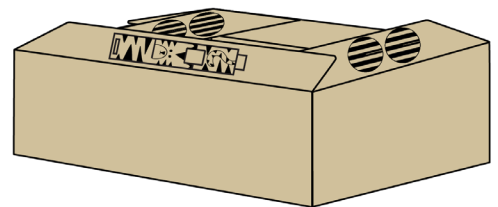
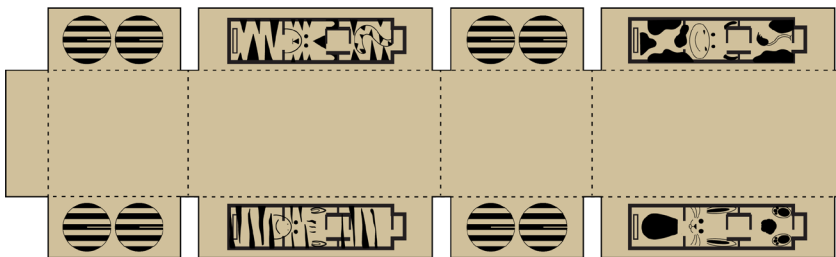
UNICEF also aims to scale the project to include more supply categories, potentially reaching tens of millions of children with developmentally relevant toys to lay a strong foundation for life-long learning.



**A ball can help a child develop gross motor skills and support social and emotional learning such as how they interact, play – and share – with other children.**



**Stacking animal blocks or geometric tiles help promote object identification and categorization. Children also learn basic concepts, such as two squares can form a rectangle and two triangles can form a square. Blocks also help develop eye-hand coordination and balance.**



**Images:** Top, examples of malnutrition recovery relevant toys on a box graphic, including a Gaze-and-roll Ball and Animal Stacking Blocks. Bottom, left 1 and 2, an early Pop-up Smile prototype for general learning through play. Later versions may have changes to clothing for gender diversity. Bottom right, Animal Stacking Blocks printed on a piece of cardboard, as could be sent to emergency settings, or printed on site for rapid access to toys in child-friendly spaces. © UNICEF/Supply Division/2022/Porritt

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