

Gerda, the Brave Giraffe!

Magnetic Resonance
Tomography

MR





Dear children, Dear parents,

You can prepare for the upcoming magnetic resonance tomography examination in a playful and child-friendly manner.



The "Join In!" symbol will prompt you to participate.

Whether tilting, searching, swiping or clapping, we invite you to actively join in.



An audio story to go along with the book is also offered. Simply scan the QR code with a smartphone camera and start listening!

Your next appointment



on

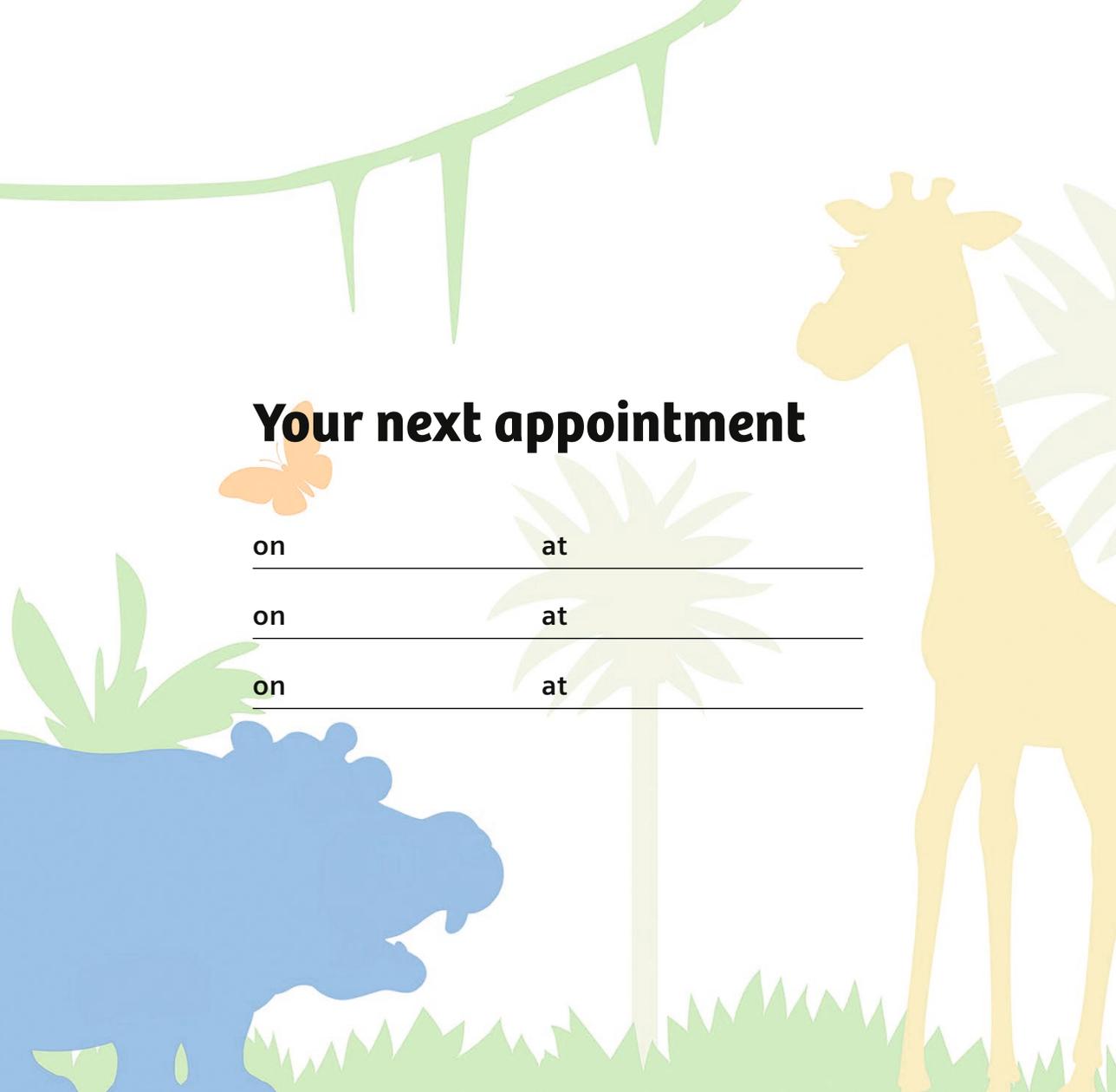
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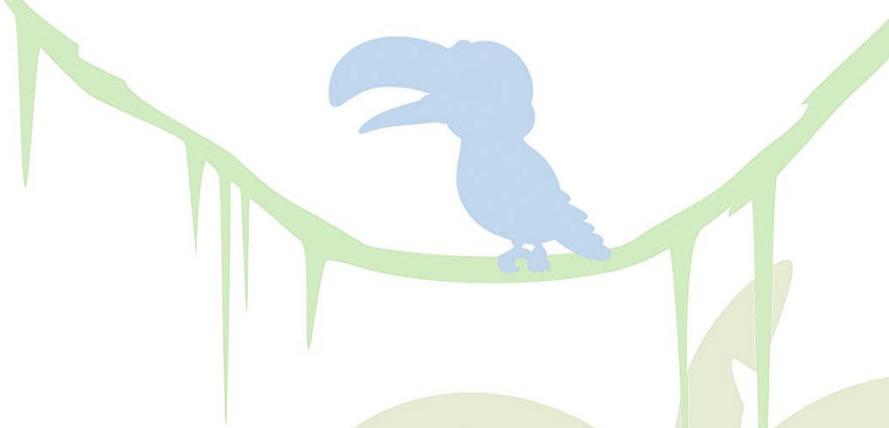
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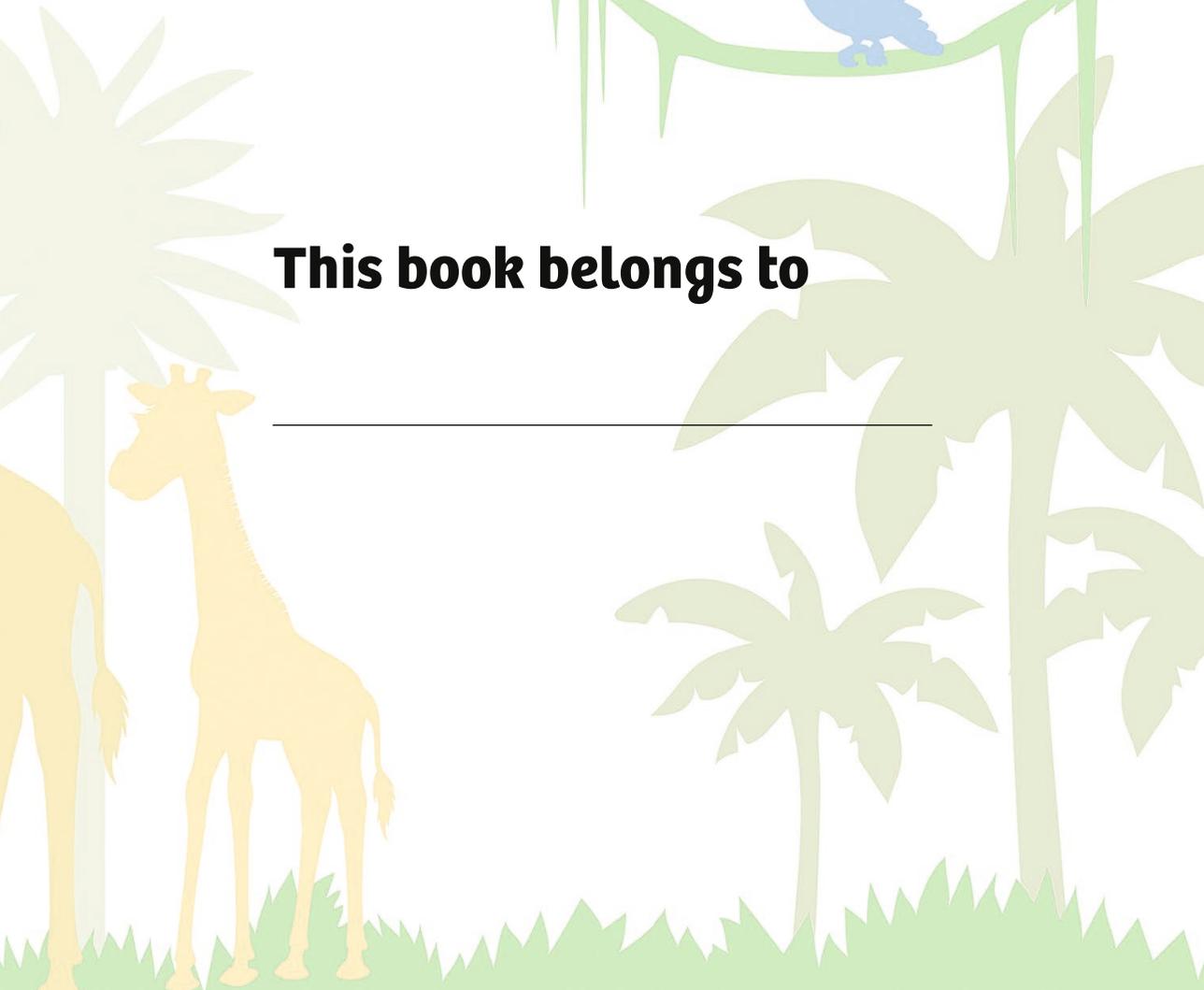
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This book belongs to



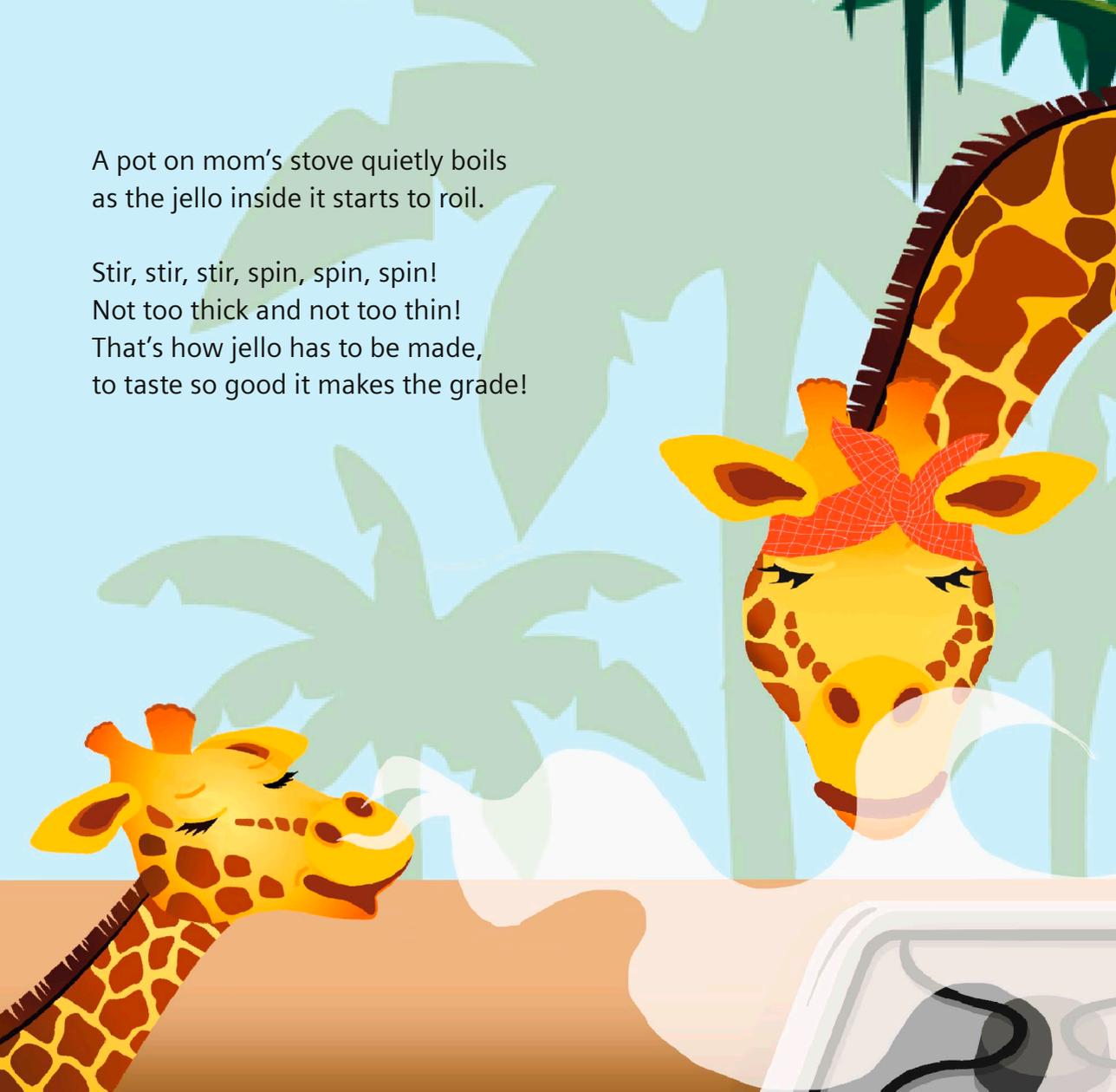
Hello! I am Gerda, a little giraffe.
I'm very mischievous and love to play.
Zipping wildly around the jungle all day.
Living in the jungle is so exciting and fun.
With so many adventures, I never miss one!

Another thing that you should know ...
My favorite food is yummy jello!



A pot on mom's stove quietly boils
as the jello inside it starts to roil.

Stir, stir, stir, spin, spin, spin!
Not too thick and not too thin!
That's how jello has to be made,
to taste so good it makes the grade!





I can hardly wait to eat.
Jello is such a yummy treat!

And it smells so delicious!
Jello makes me more courageous!

It smells so tangy and sweet,
I can hardly wait to eat!

I race around the kitchen, fast and reckless.
And my ear gets caught in mom's pearl necklace.
Got lucky this time, just a little scare,
But the strand on mom's necklace does start to tear.

Unnoticed, the pearls fall from the string,
Tumbling into the pot and disappearing.





The jello is ready on my favorite plate.
I come running, faster and faster, I just can't wait!

I gallop in swiftly, I can't wait to taste it,
jello is so good I don't want to waste it!



Oh, no! The jello is so far away at the end of the table!
I really want to eat it, but I am unable!

How I can I get to it?
I don't know if I can. Could you give me a hand?

JOIN IN!
Tilt the book
to the left and
move Gerda
to her jello.



Great, thank you, thank you!



I'll lap it up happily.
A sweet-tooth like me,
is always excited when there's jello to eat!
It sprays to the left and then to the right.
My mouth is all messy, such a tasty delight.

JOIN IN!

**Wipe your hand
over Gerda's
mouth to help
her clean it.**



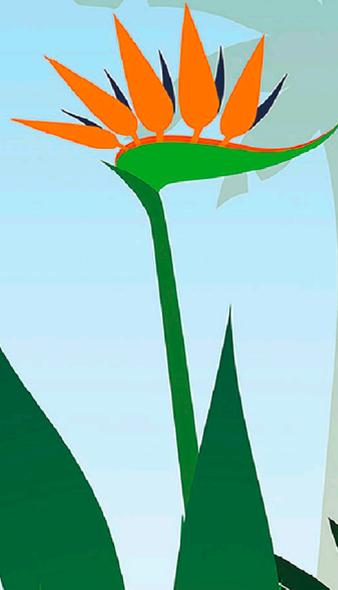
Thank you, I am clean again!

My friends and I are playing in the jungle and trees.
We run around the forest like wild bees.

Mom hollers,
"Not so fast, slow down!
It's dangerous, such racing around!"



What's wrong with my tummy?
It suddenly feels a little funny!
Was it all the jello I ate?
Should I have eaten with a little less haste?



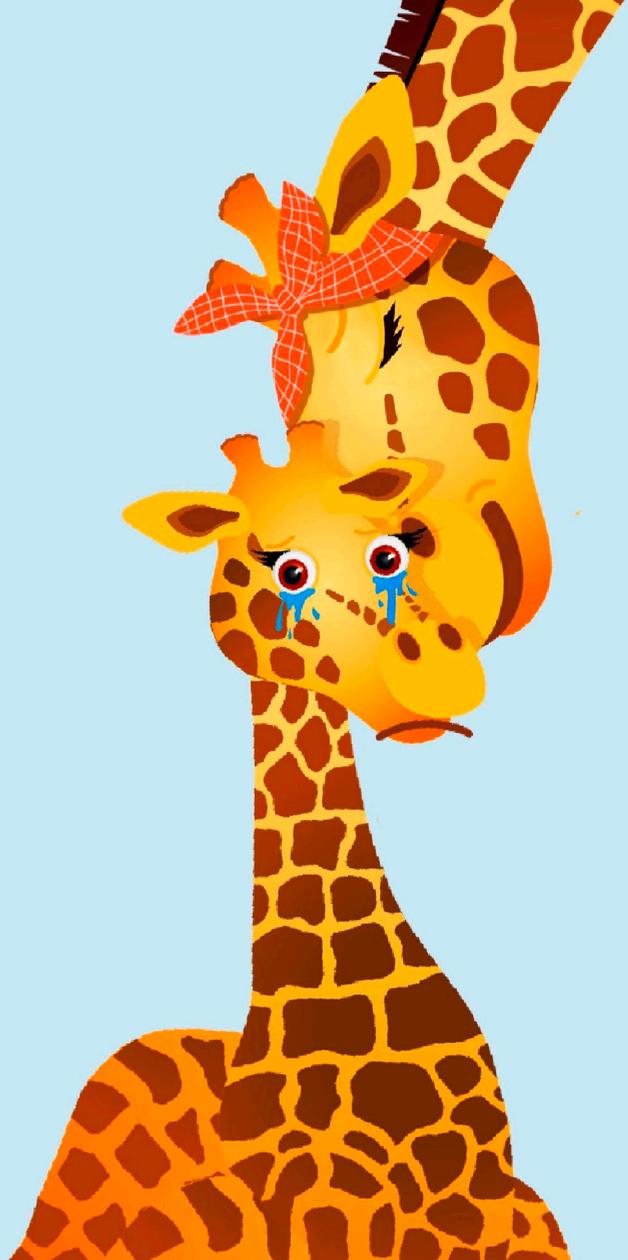


Ouch!
It hurts so much!

JOIN IN!

**Rub Gerda's tummy
and blow the pain
away! Maybe then
she'll feel better?**

My tears begin to pool.
How could I be such a fool!
My mommy giraffe lovingly soothes me.
But blowing and rubbing just aren't the key.





The pediatrician, Dr. Grape is a very lovely ape.
He can't look inside me using only his eyes,
but I still trust him and take his advice.

His medical skills are in demand
beyond the forest in the most distant lands.

But, to look inside me
(there's no way around it)
There's a special magic tube
And I have to get inside it.

It doesn't hurt anyone, big or small.
It will be over in no time at all.





What is that cool thing?
It shines like metal, like a silver ring.
This magical tube, you see
lets Dr. Grape see inside of me.

“Gerda, don’t be afraid! Trust me.
Soon you’ll feel better
and we’ll drink a sweet tea.”

Special magic tube



SIEMENS
althineers

Gezdo,
the Brave Giraffe!





Gerda,
the Braue Giraffe

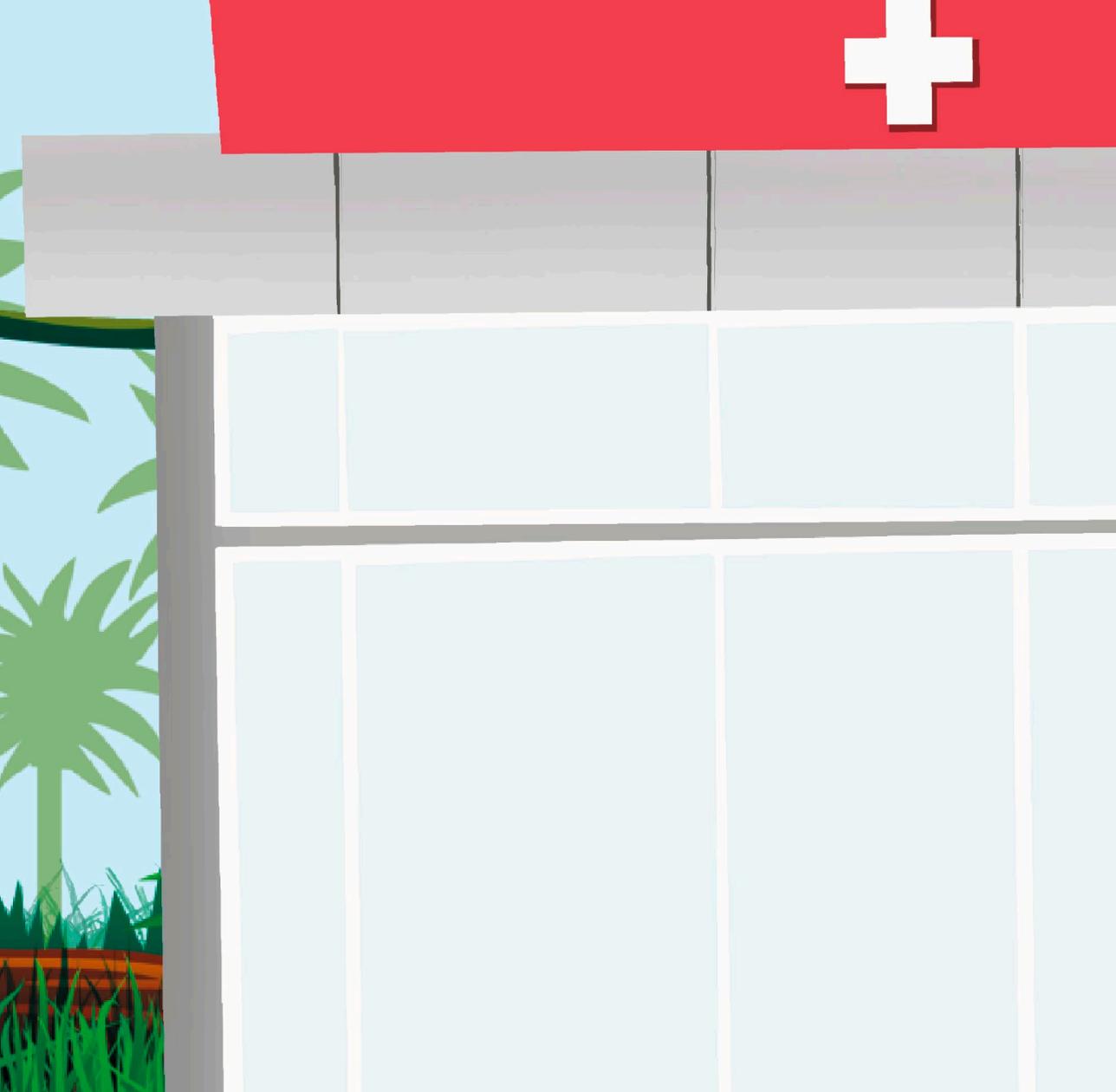
A giraffe with a brown and orange spotted pattern is drinking water from a woven basket. The basket is filled with blue water and has a yellow tube-like structure inside. The background is a solid pink wall. At the top, there is a string of four triangular bunting flags with different patterns: stars, stripes, dots, and swirls. At the bottom, there is a red rug with a white pattern.

At home, mom reads me a book about the magic tube.
My mom reads so well and is so caring.
It makes me feel much more daring.

The time has finally come, I know.
Everyone is getting ready to go.

We're off to the hospital, to radiology.
I've never been there before, I can't wait to see!





No metal is allowed to go inside the magic tube, oh no!

It has a big magnet inside that attracts all metal from far and wide.





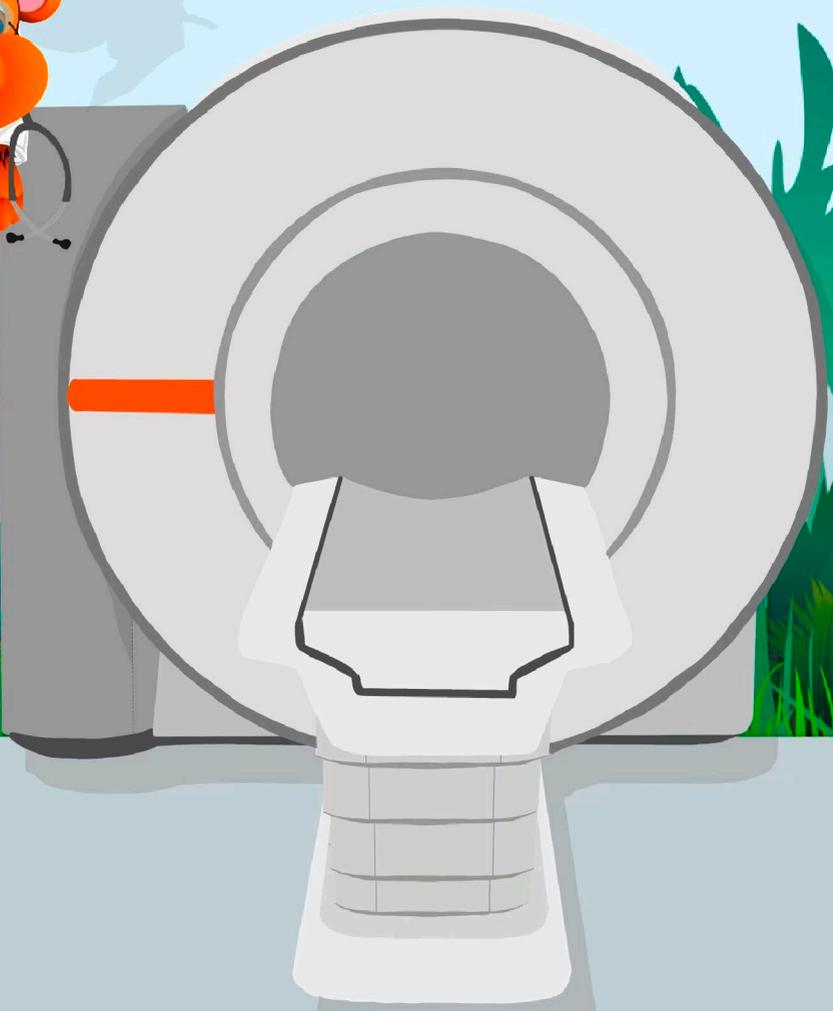
JOIN IN!

**Everyone is
wearing something
that can't go in
the magic tube.**

**What does that
include?**



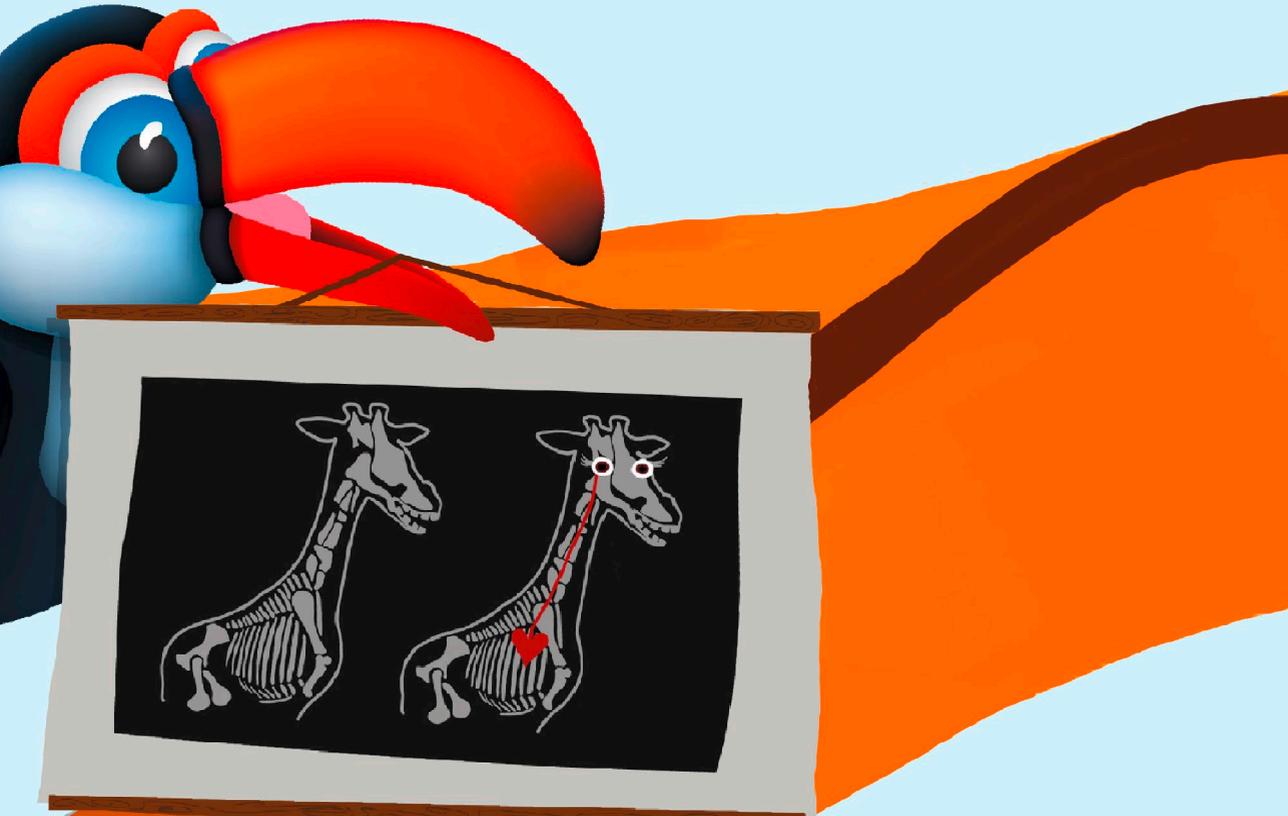




Now, I can go into the magic tube.
Everyone is so friendly. It's nice no one's rude.



Contrast dye is a magic potion like ink,
To see the organs even better, and it's sometimes a drink.
Like a drop of water on a hot stone
my fear dissipates, so small has it grown.
Just one little prick, but I'm not scared.
Mommy giraffe is in the room with me, right there.





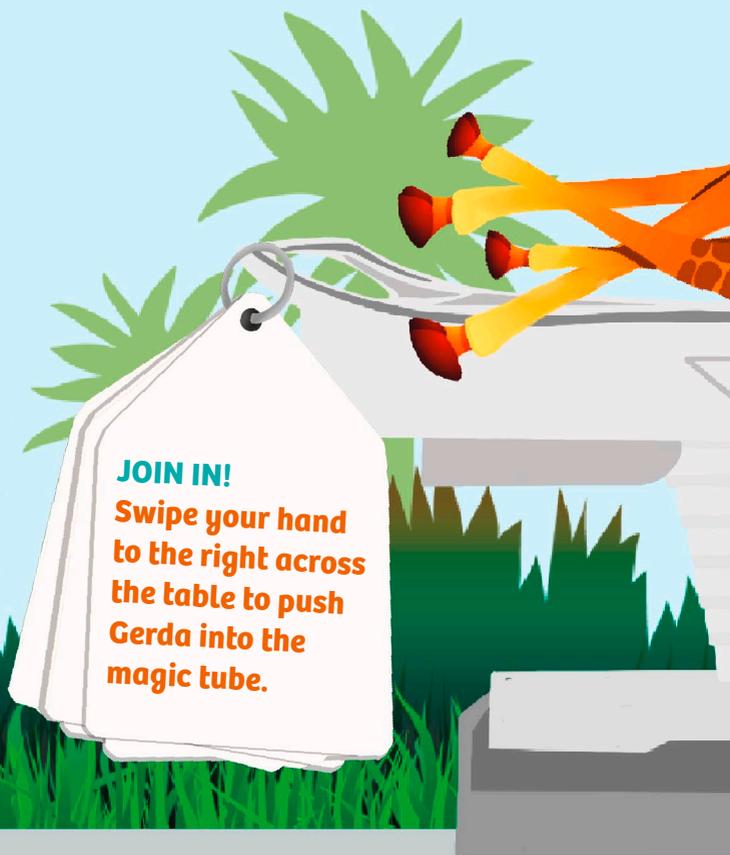
As a young jungle giraffe, I'm not very old
I'm only used to heat and I seldom get cold.
The magic potion is oddly chilly
and feels strange and gives me the willies.





Like liquid ice cream, says Tuki Toucan. Yes, you're right!
Be brave, Gerda, I tell myself, so it goes fast as it can!

Relaxed, on the cool-looking table I lay.
It slowly moves up, with a whoosh I'm away.
Into the magic tube all the way.
Alone with my teddy,
my very best buddy.





Inside this tube is such a din!
No wonder! They're drilling and building within.

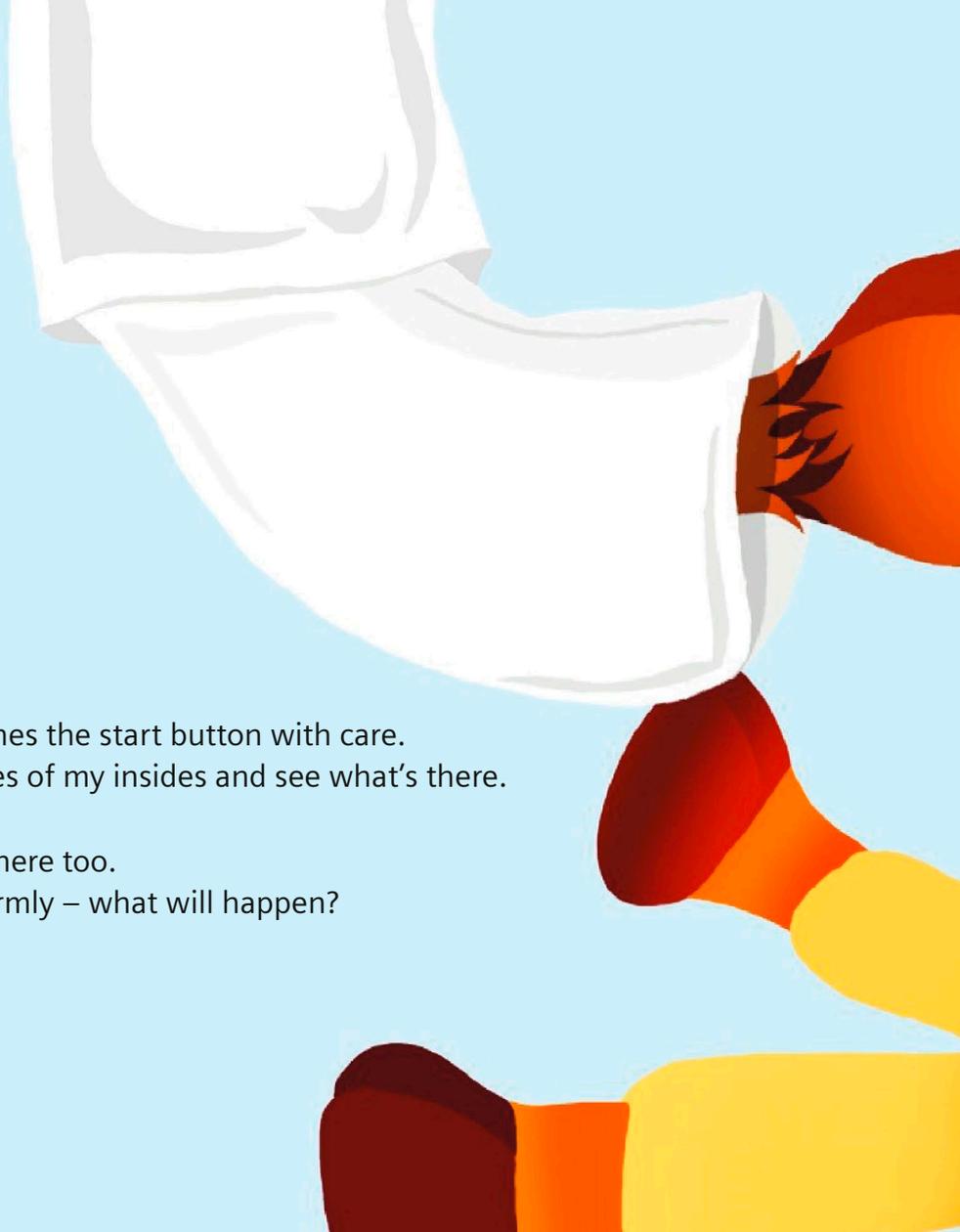
My headphones protect my ears
and the apes' noise simply disappears.



The apes knock, hammer and drill along
but all I hear is the bravery song.

JOIN IN!
**Drum and
hammer with
the apes!**





Dr. Grape pushes the start button with care.
To take pictures of my insides and see what's there.

You can try it here too.
Press "Start" firmly – what will happen?

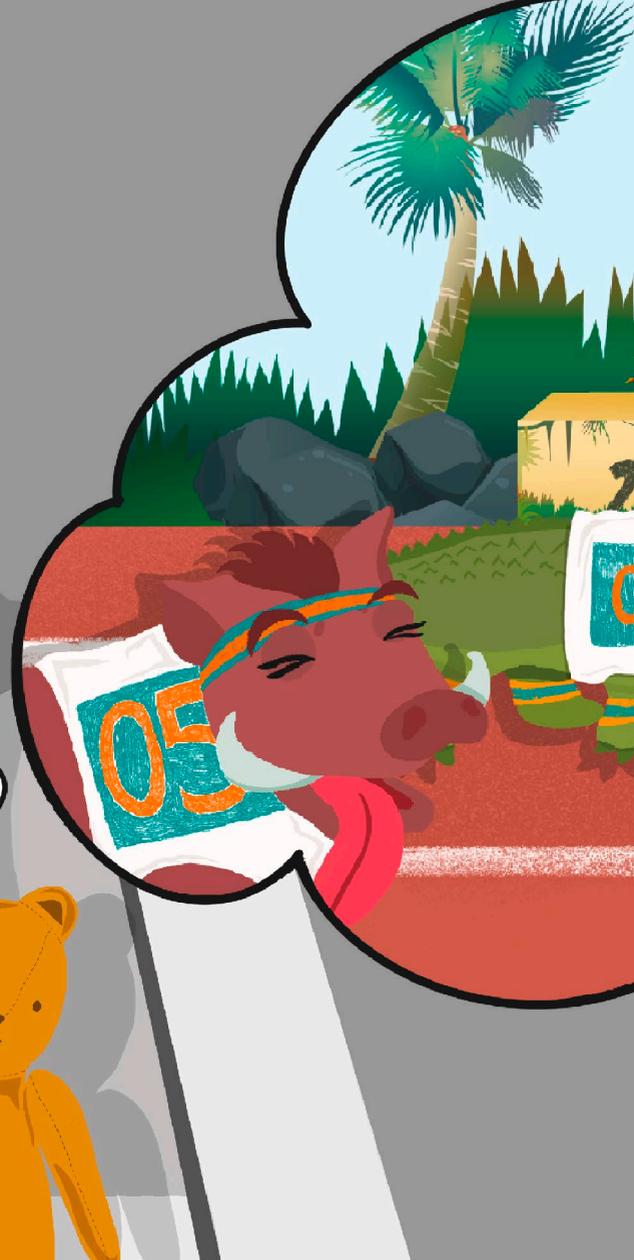


JOIN IN!
Press the
START button!

START

It's rather comfy, I am pleased to learn.
I lie very still and try not to turn.
Teddy is also lying very still.
He'll always protect me, I know he will.
He makes me feel brave and strong.
That helps me stay calm so long.

I breathe the way Dr. Grape tells me to.
I wonder if Teddy likes it, too?





Inside the magic tube, quiet as a mouse,
I relax and imagine adventures in the jungle by my house.

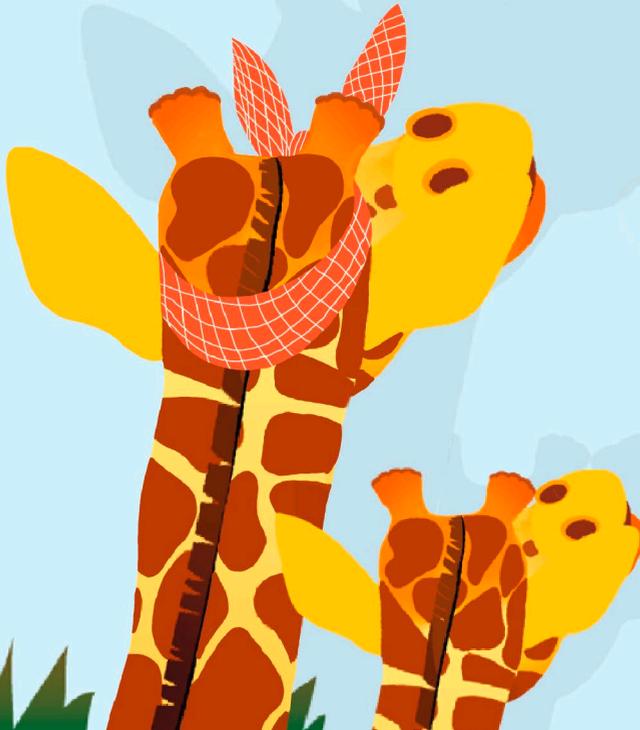
**TO THE
AUDIO STORY**
Scan the QR
code & start
listening!



Hurray! It's over! I can hardly believe it's true,
I'm finally allowed to get out of the tube.

Wow! The pictures are so clear!
They make so many details appear!

Hey, that's inside my tummy, cool!
And, you can see mom's pearls, too.





JOIN IN!

**Can you find
the swallowed
pearls in Gerda's
tummy?**



I was very brave!
So I got a medal!





SIEMENS
Healthineers

SIEMENS
Healthineers



Gyrdar
brave medal



Now I'm back in my jungle home
happily drinking lemonade with my mom.

In the grass all around me, my friends jump and run.
My bravery medal is a lot of fun.



The pearls came out all on their own,
as I sat on the toilet inside of our home.





Magnetic resonance imaging

**Your child's
MRI examination
briefly explained**

Magnetic resonance imaging (MRI) is also referred to as magnetic resonance tomography and is often used to depict internal organs. Contrary to other imaging procedures, the MRI unit works with a magnetic field and radio waves, which means no radiation exposure.

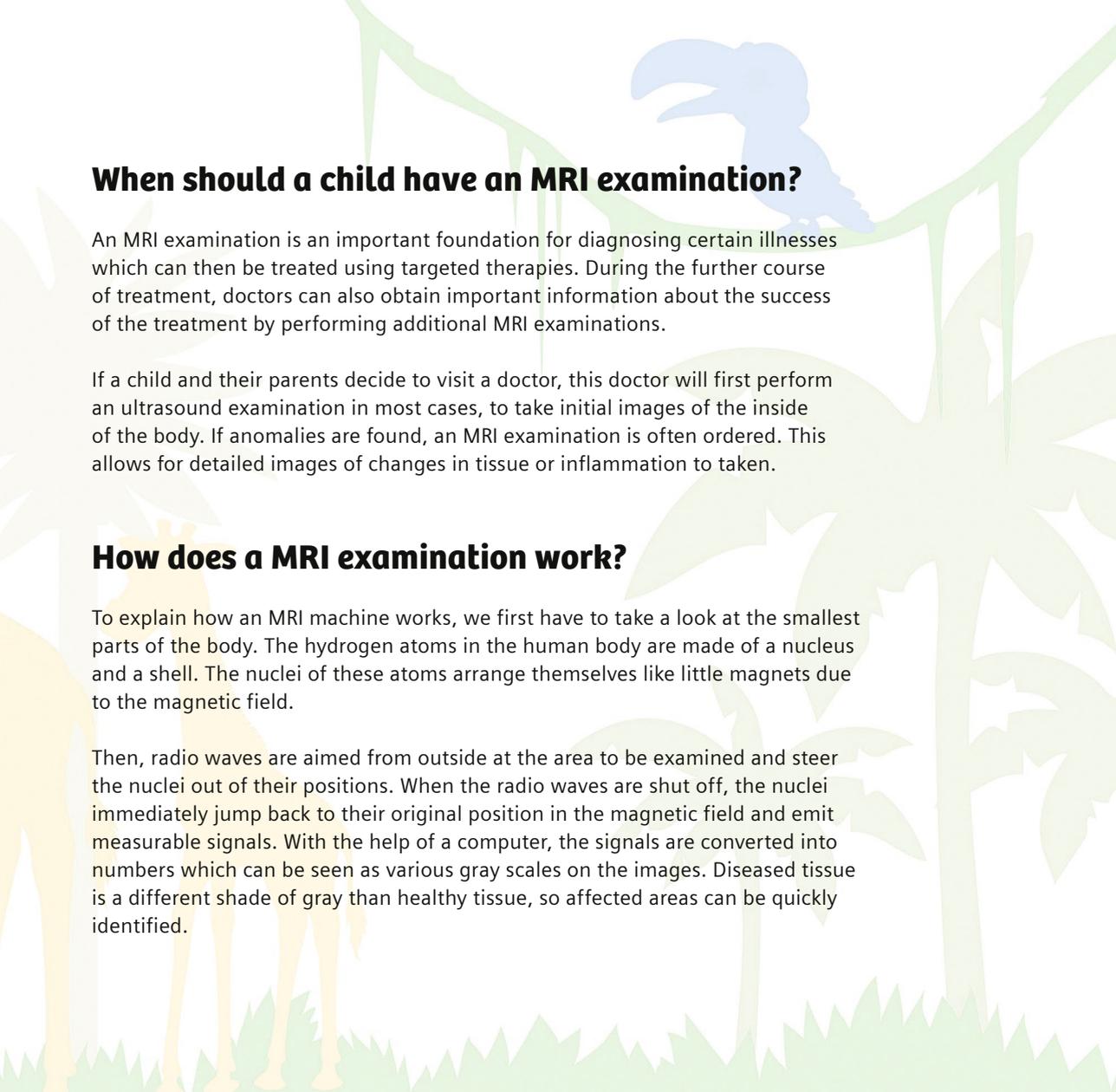
An MRI examination can only be conducted using a lot of technology and a large machine. This procedure is unfamiliar to children and can cause a variety of reactions. While one child will be excited and curious about the machine, others will be afraid of spending time in the treatment chamber. This book aims to provide children and their parents important information about the MRI examination and reduce potential fears and uncertainties as much as possible.

What is an MRI examination?

Magnetic resonance imaging is primarily used to take pictures of the inside of the patient's body from outside. In addition to soft tissue and nerve tissue (e.g. brain and internal organs), joints, bone marrow and blood vessels can be visualized very well with an MRI examination.

Detailed images of the body can be made with the help of a powerful magnetic field and radio waves. These images display the depicted tissues in several layers: longitudinal, lateral and transverse. The MRI examination does not use X-ray radiation.

The magnetic resonance imaging unit is a large tube that is open at both ends. The patient is moved into it on a stretcher at the start of the examination. There is a large magnet inside the scanner that makes sure images of the inside of the body can be taken. There may be loud sounds during the examination. To protect the patients, they receive headphones and earplugs in advance and can listen to music or an audio story.



When should a child have an MRI examination?

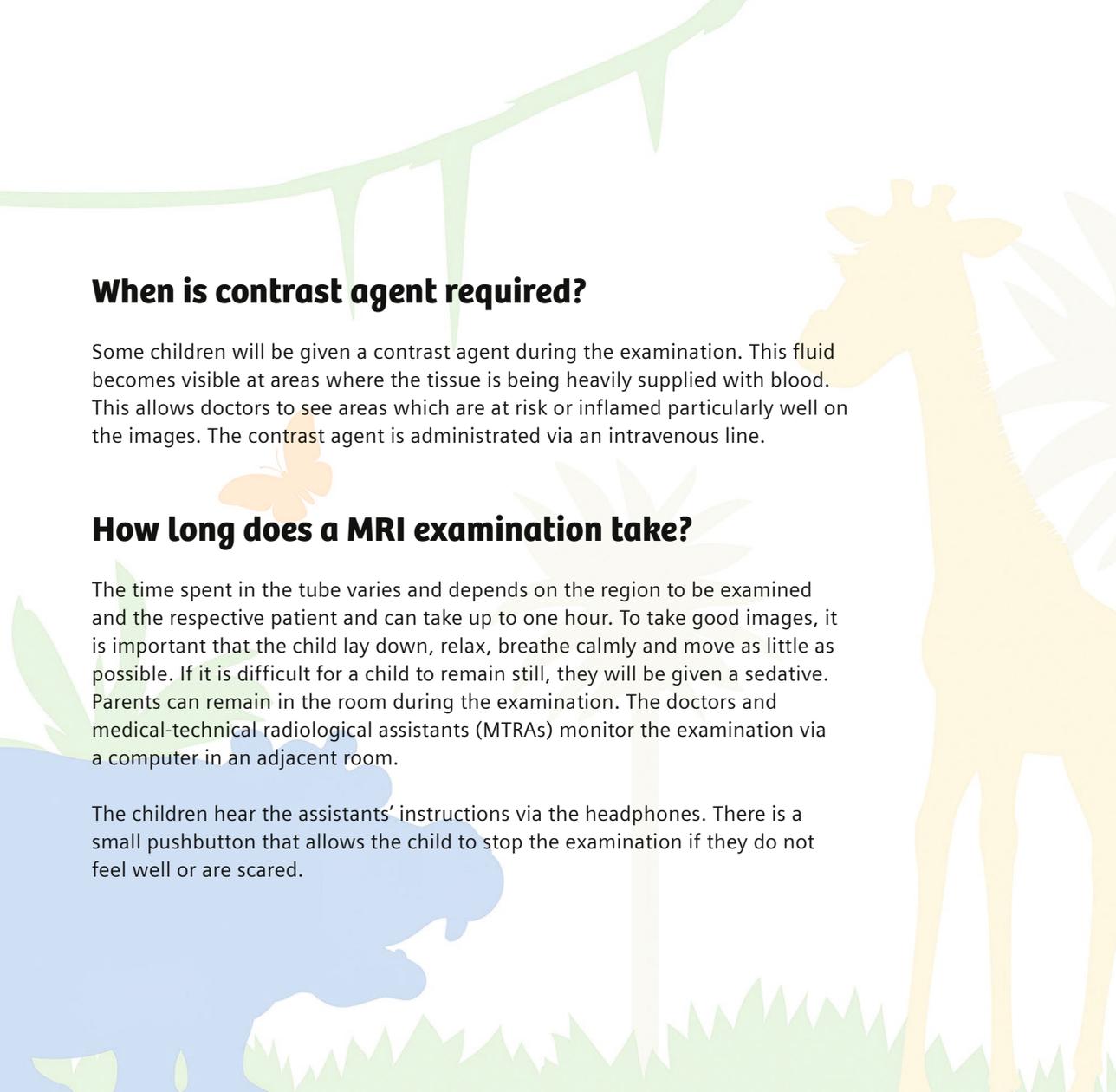
An MRI examination is an important foundation for diagnosing certain illnesses which can then be treated using targeted therapies. During the further course of treatment, doctors can also obtain important information about the success of the treatment by performing additional MRI examinations.

If a child and their parents decide to visit a doctor, this doctor will first perform an ultrasound examination in most cases, to take initial images of the inside of the body. If anomalies are found, an MRI examination is often ordered. This allows for detailed images of changes in tissue or inflammation to be taken.

How does an MRI examination work?

To explain how an MRI machine works, we first have to take a look at the smallest parts of the body. The hydrogen atoms in the human body are made of a nucleus and a shell. The nuclei of these atoms arrange themselves like little magnets due to the magnetic field.

Then, radio waves are aimed from outside at the area to be examined and steer the nuclei out of their positions. When the radio waves are shut off, the nuclei immediately jump back to their original position in the magnetic field and emit measurable signals. With the help of a computer, the signals are converted into numbers which can be seen as various gray scales on the images. Diseased tissue is a different shade of gray than healthy tissue, so affected areas can be quickly identified.



When is contrast agent required?

Some children will be given a contrast agent during the examination. This fluid becomes visible at areas where the tissue is being heavily supplied with blood. This allows doctors to see areas which are at risk or inflamed particularly well on the images. The contrast agent is administered via an intravenous line.

How long does a MRI examination take?

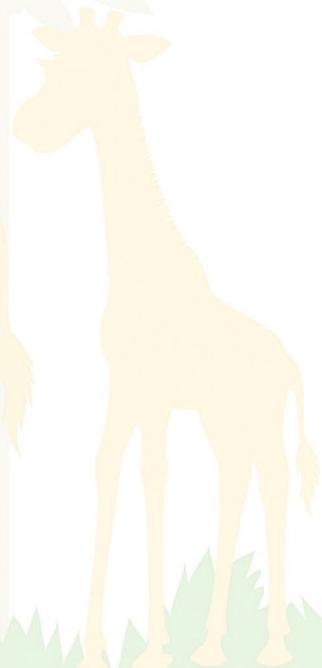
The time spent in the tube varies and depends on the region to be examined and the respective patient and can take up to one hour. To take good images, it is important that the child lay down, relax, breathe calmly and move as little as possible. If it is difficult for a child to remain still, they will be given a sedative. Parents can remain in the room during the examination. The doctors and medical-technical radiological assistants (MTRAs) monitor the examination via a computer in an adjacent room.

The children hear the assistants' instructions via the headphones. There is a small pushbutton that allows the child to stop the examination if they do not feel well or are scared.



What are the risks of an MRI examination?

Since MRIs use a magnetic field, the procedure does not entail any radioactivity or radiation. However, children who have a cardiac pacemaker, vascular clamps, artificial heart valves or prostheses made of metal in their bodies cannot be examined in the MRI machine. In addition, expecting mothers in the first 12 weeks of pregnancy are not permitted to enter the room where the MRI machine is located.

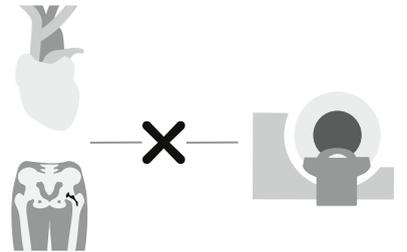


MRI examination procedure

1 On the patient sheet, you provide information that is important with respect to your child's examination. If a contrast agent is required to better see certain structures in the body, your child will be given an i.v. line.



2 Due to the powerful magnetic field, magnetic objects are prohibited in the vicinity of the MRI machine. Therefore, please notify the staff if your child has any metal objects in their body (e.g. implants, cardiac pacemaker, stents).



3 All metal objects your child has on its body must be removed before the examination (e.g. piercings, jewelry, glasses, hearing aids or brazier underwire).



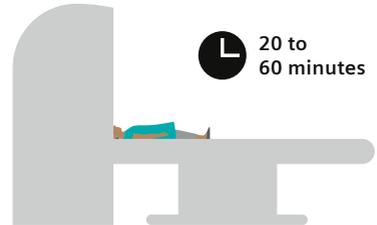
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To ensure the optimum image quality, a receiver coil will be placed around the area of the body to be examined. After that, your child will be moved into the magnet tunnel and the examination will begin.



5

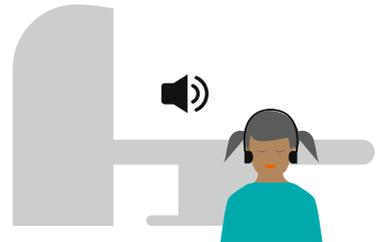
The examination takes approx. 20 to 60 minutes. Your child should lie as still as possible because movements negatively impact the quality of the images and can result in delays.



6

What does an MRI examination feel like?

You child cannot feel the examination itself. To protect the child against the loud knocking noises made by the MRI machine, they are given hearing protection. The confinement of the tunnel can be unfamiliar which is why many patients feel better if they close their eyes. If contrast agent is administered during the examination, the area may feel warm or cold as the agent runs in.



The most important points, in brief

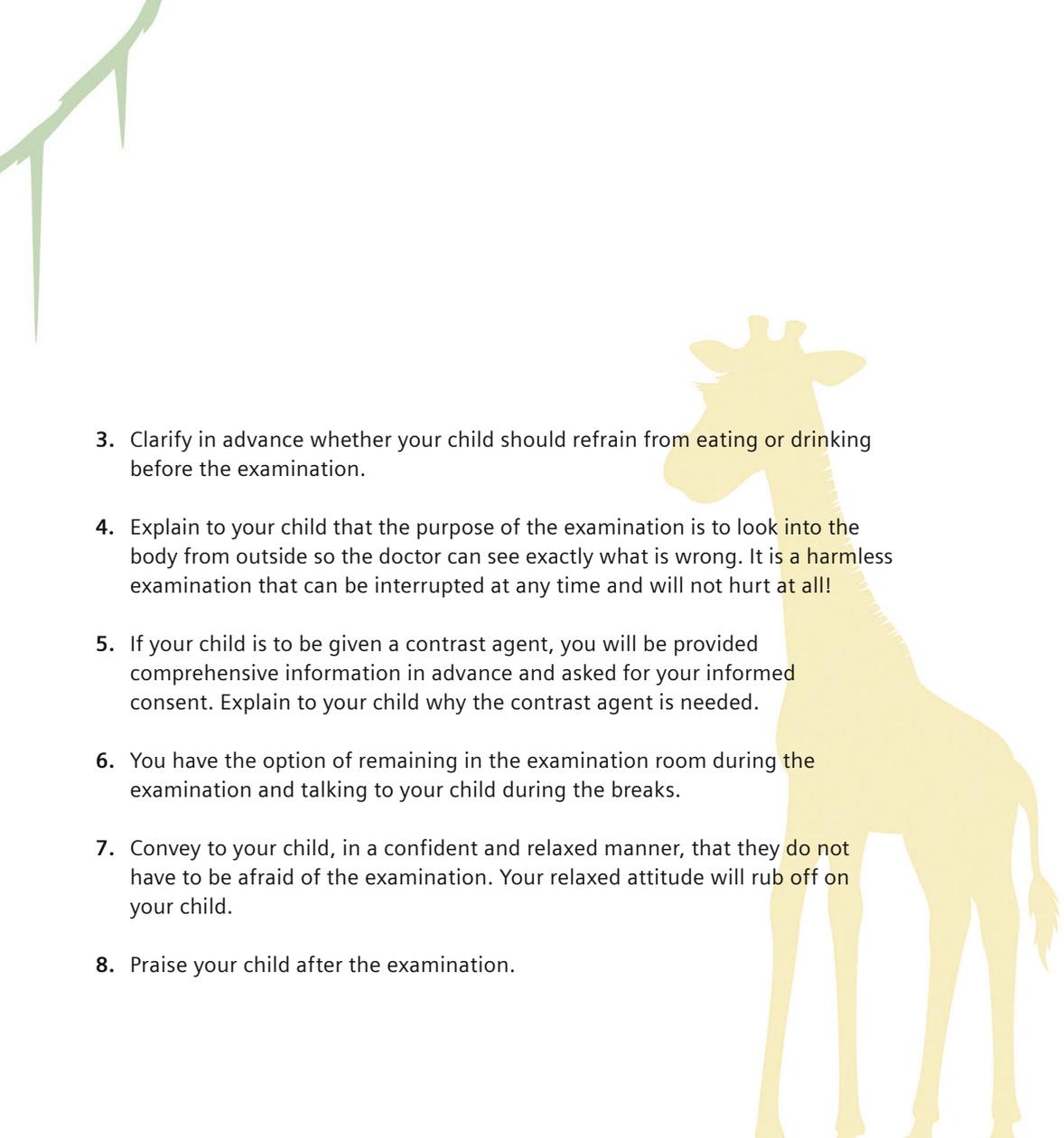
An MRI examination is a safe and effective method for the early identification of illnesses and changes in the body so the best possible treatment can be provided.

1. You and your child should choose comfortable clothing for the examination. Please make sure the clothing does not have any metal parts like buttons or zippers.
2. You can bring your child's favorite stuffed animal (without metal parts) for support. Audio books with stories or music you bring with you or the Gerda audio story can be played during the examination.



**TO THE
AUDIO STORY**
**Scan the QR code
& start listening!**

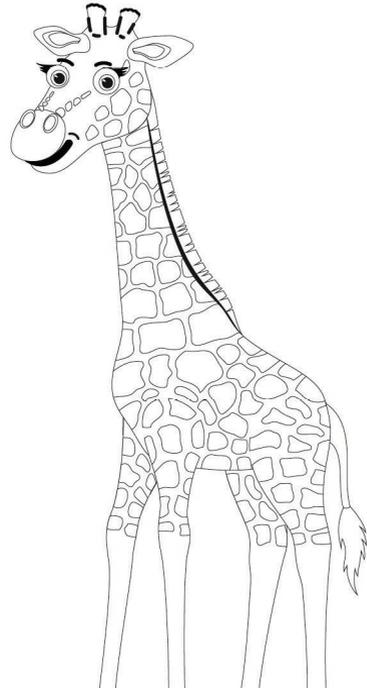
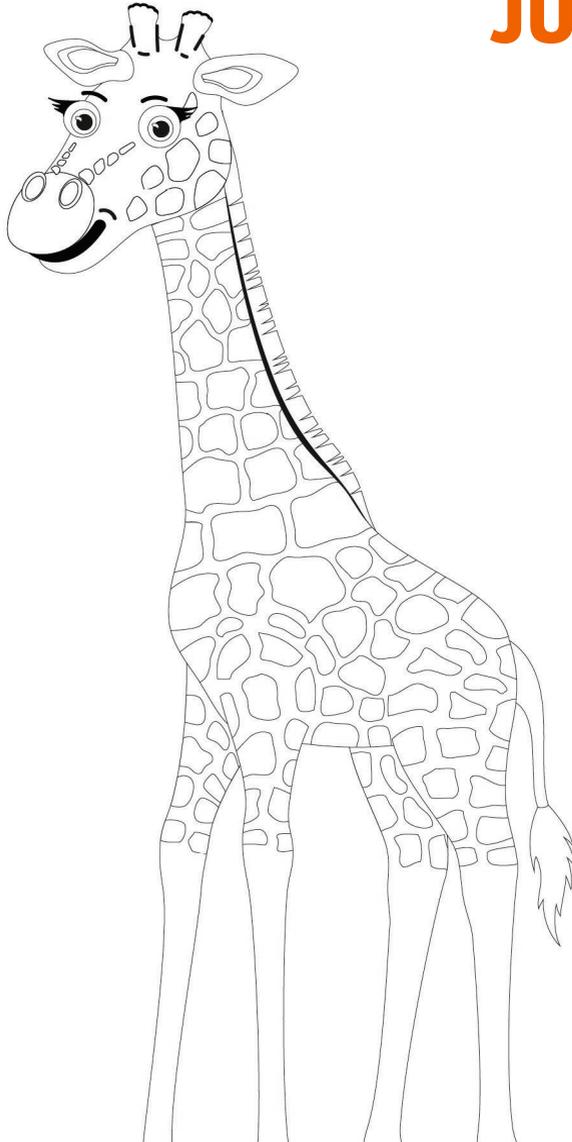


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3. Clarify in advance whether your child should refrain from eating or drinking before the examination.
 4. Explain to your child that the purpose of the examination is to look into the body from outside so the doctor can see exactly what is wrong. It is a harmless examination that can be interrupted at any time and will not hurt at all!
 5. If your child is to be given a contrast agent, you will be provided comprehensive information in advance and asked for your informed consent. Explain to your child why the contrast agent is needed.
 6. You have the option of remaining in the examination room during the examination and talking to your child during the breaks.
 7. Convey to your child, in a confident and relaxed manner, that they do not have to be afraid of the examination. Your relaxed attitude will rub off on your child.
 8. Praise your child after the examination.



JUNGLE WORLD

to color in





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MR scanning has not been established as safe for imaging fetuses and infants less than two years of age. The responsible physician must evaluate the benefits of the MR examination compared to those of other imaging procedures.

Fragebogen
(DE)



Questionnaire
(EN)



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