



Your Child's Palatal Expander

A parent's guide to the fixed (Hyrax) rapid palatal expander

READ BEFORE DELIVERY DAY · KEEP IT ON THE FRIDGE

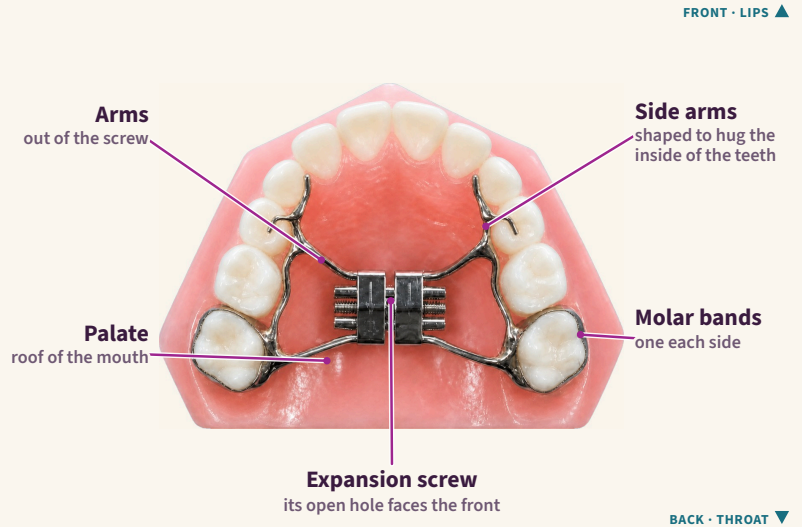


1 What a palatal expander is

An expander is a small custom appliance that is **cemented in**. Two metal bands go around your child's upper back molars, and thin wires run forward from them along the inside of the top teeth. In the middle, against the roof of the mouth, sits a tiny screw — turning it a fraction of a turn each day gently widens the upper jaw. **It does not come out**, not by you and not by your child.

It works because the roof of a growing child's mouth is **not one solid bone**. It is two halves joined down the middle by a flexible seam called the *midpalatal suture*. The expander eases that seam apart, and the body fills the space with new bone.

This is why age matters. While your child is still growing, that seam opens gently. In an adult it is fused solid and the same result needs surgery. Doing this now is the easy version.



2 Why your child needs one

We recommend an expander when the upper jaw is too narrow for the lower one. That shows up as:

- **Crossbite** — upper back teeth biting *inside* the lower ones, often pushing the jaw sideways to close.
- **Crowding** — not enough room for the permanent teeth still to come.
- **Impacted canines** — clearing a path so the eye teeth arrive on their own instead of needing surgery later.

Widening now often means shorter, simpler braces later — and sometimes avoids removing permanent teeth to make room.

A note about breathing. Widening the upper jaw also widens the floor of the nose, and some children find it easier to breathe through their nose afterward. That is a welcome side effect we are glad to see. It is **not** the reason we are recommending treatment, and we do not promise it.

3 Getting it placed — three visits

1

Spacers, a week ahead

Rubber separators go around the back molars to open a hair of space so the bands fit. They feel **tight and achy for a day or two**. Soft food and ibuprofen help. Do not floss them out, and call us if one falls out.

2

Scan & fit

We take out the spacers, scan or take an impression, and pick band sizes. The expander is then made to fit your child exactly. Nothing uncomfortable happens at this visit.

3

Delivery day

No shots, no drilling — about 30 to 45 minutes. Before your child leaves, **we turn the screw 3 times right here**, so it is already working and you have seen how it is done.

4 The first few days — all of this is normal

- **Pressure** behind the nose or between the eyes after a turn, fading within the hour.
- **Extra saliva** for a day or two.
- **A crowded tongue**, often with a sore spot in the first week.
- **A lisp**. Reading out loud ten minutes a day clears it much faster.
- **Softer foods** for two or three days.

Most children are fully used to it in 3 to 7 days. The first night is the worst night — tell your child that, so they know it gets better.



Before
Front teeth together,
as you know them.



Week 1-2
A gap opens. Good news —
keep turning.



Weeks after
It closes on its own.
Nothing for you to do.

5 About the gap between the front teeth

In the first week or two **a gap will open between your child's two front teeth**. It can appear fast and look dramatic. Do not stop turning; that gap is the **proof the expander is moving bone** rather than just tipping teeth sideways, and it is exactly what we want to see. Over the following weeks the fibres between those teeth pull them back together and it closes on its own. If any is left at the end, we deal with it easily later.

6 The turning schedule

Spacers	Delivery day	48 hours	Your first turn	Nightly turns	The hold	TPA retention
about a week before	cemented in · we turn it 3x	no turning at all	here, with us watching	~2–3 weeks · you, at home	8–12 weeks · nothing to do	about 4 years · nothing to do

Not drawn to scale — retention is by far the longest part. Only one stage is your job.

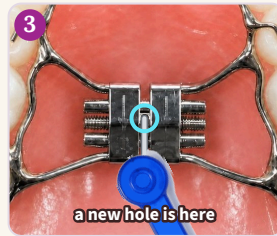
Do not turn it for the first 48 hours after delivery day. We already did three turns in the office and your child needs those two days to settle. You then come back for a short visit and **do the first turn yourself, with us watching** — so you have done one before you ever do one at home.

7 How to turn it

▲ FRONT · LIPS



▼ BACK · THROAT



One turn every night

Same time each night — bedtime is best, because the pressure fades while your child sleeps. **Missed a night?** Turn it the next night and carry on. **Never double up** to catch up; expanding too fast is painful and can damage tissue. If your child is sensitive, ibuprofen an hour *before* the turn beats anything after it.



▶ Watch a turn being done

Tap this box on your phone. On a printed copy, scan the code.

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Key into the front hole

Have your child **lie back with their head in your lap** under a good light — a phone flashlight helps. Put the key **straight into the hole you can see at the front**, all the way until it stops.

Push toward the throat

Push until it will not go further and a **new hole appears at the front**. That is one turn. If no new hole shows, it did not finish — put the key back in and finish it.

Slide it out the front

Straight down and out toward the lips. **Do not drag it back the way you pushed it** — that can roll the screw backwards and undo the turn you just made.

Turns at home:

WE WRITE THIS IN FOR YOU

☐ ☐

Tick one box each night. Every child's number is set for their jaw, not from a chart — stop when you reach it and call us. Do not keep going, and do not stop early.

8 What is normal, and what needs a phone call

✓ Normal — carry on

- ✓ Pressure or a dull ache for an hour after a turn
- ✓ A gap opening between the two front teeth
- ✓ A lisp, extra saliva, and food collecting underneath
- ✓ A sore spot on the tongue in the first week
- ✓ Feeling the pressure up near the nose or eyes

! Call us right away

- ! The screw **will not turn**, or spins with no resistance
- ! It feels **loose, rocks or clicks**, or a band came off
- ! Something is **poking**, or a sore is not healing
- ! **Severe pain** — not the familiar post-turn ache

9 Food and cleaning

- Gum
- Sticky sweets
- Chewing ice
- Popcorn
- Nuts
- Hard candy

Sticky food pulls bands loose and hard food bends the arms. Cut apples, carrots and corn **off the cob and into pieces**. **Sports are fine** — we can fit a mouthguard over it; wind and brass players need a week or two to readjust.

Brush after every meal, up and over the appliance and along the gumline of the banded teeth — that gumline is where decay starts, so keep using **fluoride toothpaste**. **Rinse underneath** with a water flosser or a syringe of water. A smell means food is sitting under there — a cleaning problem, not an appliance problem.

10 After the turning stops — the part that locks it in

Reaching your number is only half the job.

- **The expander stays cemented in another 8 to 12 weeks.** The seam you opened is full of soft tissue that has to become real bone; out too early and the jaw drifts back to narrow. **This is the most important phase — and the one where it feels like nothing is happening.**
- Then we swap the Hyrax for a **TPA (transpalatal arch)** — a thin wire across the palate between the upper molars. **Nothing to turn, nothing for you to do.**
- **The TPA stays in about 4 years.** An expanded jaw wants to relapse, and that pull lasts years, not months — **losing the TPA early is the main way this treatment fails.**

