

Q. How do I activate the Keles Keyless Expander in the mouth?

1. With a finger, push the arm straight down. This step can be performed either by the patients themselves or by a guardian/parent.
2. Pull the arm straight up. This movement is passive and will bring the arm to its initial position to make it ready for the next activation.

Q. Can the Keles Keyless Expander be unturned or reversed?

Yes, the Keyless Expander can be reversed intraorally or extra-orally with the reversal kit. Available from SML product section smlglobal.com/orthodontics-products

Q. Can the patient turn the arm with their tongue?

No, the patient will not be able to turn the arm with their tongue for the following reasons.

1. Force: In skeletal expansion the expander exerts on average 5-10kg (50-100N) force, which the tongue would not be able to turn.
2. Grip: The end of the lever is rounded and a patient is not able to grip it and pull it down.
3. Movement of Tongue: In the twisted upwards position the tongue can touch it; however, you are not able to pull the tongue downward. The patient won't be able to turn the lever with their tongue.
4. Positioning of the lever/arm: The arm is placed parallel to and above the tongue, therefore in the case that the tongue moves up it will touch the bottom part of it.

Q. Can the patient over activate the screw?

Even though overaction might be a concern at first glance, with the Keyless Expander, there are multiple systems preventing it.

1. Activation Phase:
 - a. 1st protection: The patient is instructed not to activate beyond the recommended amount by their doctor.
 - b. 2nd protection: During this phase, we want the patient to activate the expander daily (0.2mm per activation). In the case of multiple activations (more than 0.4mm), the average force exerted is 5-10kg (50-100N). It will physically be very difficult to turn the arm more than two times, to the point where their hand would likely hurt in the attempt.
 - c. 3rd protection: In the case that subsequent attempts are made, the exerted forces will result in immediate discomfort in the palate, conditioning the patient not to repeat the expansion.
2. Retention Phase:
 - a. 4th protection: In an appointment following the active expansion phase, there is the option to remove the arm with a common cutting burr. There is no concern of the screw reversing without the arm.



Keles Keyless Expander

Frequently Asked Question

Q. Does the patient play with the expander?

The Keyless Expander has been used to treat more than 3,000 patients, without considerable report of patients playing with the screw or arm. The arm is positioned parallel in the mouth to the tongue, keeping it out of the way.

Q. Does the arm / lever irritate the palate of the patient?

An upper restrictor at the base of the arm positions it parallel to the palate. This positioning prevents the arm from being pushed into the palate, ensures it does not irritate the tongue, and allows the patient to easily grasp the arm for the next turn.

Q. Can a half turn be done?

No, one full activation is completed by activating the arm. 1 turn = 90 degrees movement of the arm = 0.2mm.

Q. Can the patient self-activate?

Yes, the patient can self-activate and can be instructed to do so as long as they comply with the amount of turns and frequency suggested by the doctor. If the patient is not fit to do the turns, the guardian/parent should do them.