Orthodontic Appliance Overview:

LHA, TPA, and Upper Expanders



The Lower Holding Arch (LHA) is a wire that connects the lower front teeth to two bands on the lower first molars. It can be fixed or removable, serving to "hold" the space between the front and back lower teeth, preventing molars from drifting forward. Additionally, the LHA preserves space in cases of premature baby teeth loss, acting as an anchor to maintain dental alignment during orthodontic treatment.



The Transpalatal Arch (TPA Bar) is a wire that spans the roof of the mouth, attaching to bands on the upper first molars. For the removable TPA, small rubber bands secure it in place, and adjustments are made as needed. Left in for at least a year, it is removed once spaces are closed and finishing wires are applied. The TPA passively anchors molars, preventing forward or tipping movement, and can also be activated by the orthodontist for specific purposes, such as teaching proper tongue position.



Upper Expanders serve the purpose of widening the upper arch to address crossbites or create space. This is crucial for relieving crowding or facilitating the eruption of adult teeth. The expansion is targeted at the suture in the middle of the palate.

What to anticipate with these appliances:

- Possible gaps between upper front teeth
- Potential discomfort or sensitivity
- Minimal impact on speech

Activated using a special swivel key, this rapid palatal expander requires turning once or twice a day until the desired expansion is achieved.

Typically reserved for older patients where partial fusion of the suture is likely, it's important to only adjust the expander as directed by the doctor.

