



OrthoPulse®
Light Accelerated Orthodontics

CLINICAL GUIDELINES

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1 CLINICAL RECOMMENDATIONS

OrthoPulse® treatment may accelerate the biology of orthodontic tooth movement.

For optimum reduction of treatment time, continuous forces should be maintained throughout orthodontic treatment.
This may require clinical protocol and visit scheduling modifications.

To review the OrthoPulse®-related clinical research and the clinical dossier, and for more information on the science behind OrthoPulse®, please visit orthopulse.com.

For more information regarding the use of OrthoPulse®, including intended use, indications, and contraindications, please refer to the OrthoPulse® Instructions For Use document, included with every OrthoPulse® and available at orthopulse.com/start.

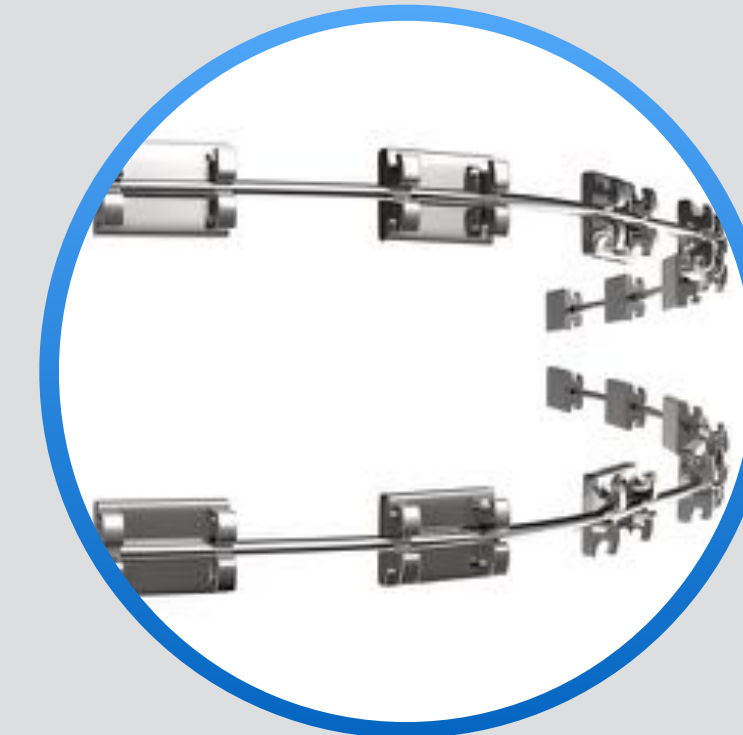
2 FIXED APPLIANCES

Levelling and Alignment Phase

Since teeth will likely move more quickly, and alignment occurs sooner with OrthoPulse[®], it is important to maintain continuous forces throughout alignment.

Modifying your usual wire sequence may lead to better efficiency. For example, if your usual sequence is .014, .018, .020x.020; maintaining continuous forces may require advancing to the next wire size more frequently and requiring shorter visit intervals. In this example, starting with .016 (or even .018), then moving directly to .020x.020 could allow for less frequent visits.

Once a square/rectangular wire is engaged, patient visits can return to customary intervals or continue more frequently according to the judgement of the orthodontist.



Space Closure Phase

Sliding mechanics are optimal.

Closing loops should be avoided as accelerated tooth movement will rapidly decrease and forces will become passive unless activated more frequently.

3 CLEAR ALIGNERS

OrthoPulse® treatment facilitates orthodontic tooth movement so aligners will become passive sooner.

Therefore, patients need to advance to the next aligner sooner than they would when following standard switching intervals.

With OrthoPulse®, we initially recommend aligner switching every five days.



These recommendations are based on using the Invisalign® system. The principles will be similar with other aligner systems.

Patient Recommendation

It is recommended that patients remove their aligners and elastics during OrthoPulse® treatment. This allows for better seating of the OrthoPulse® mouthpiece.

Aligners are to be worn 20+ hours per day, removed only for hygiene, meals and OrthoPulse® treatment.

OrthoPulse® treatment should be completed daily with, ideally, no missed treatments. Compliance is crucial!

4 INVISALIGN® ALIGNERS

7-Day Aligner Changing

The recent recommendation by Align Technology to change aligners every seven days may not be suitable for all patients.*

OrthoPulse® can help remove the uncertainty in deciding whether a patient should start with a 7-day aligner change protocol.



While using OrthoPulse®, patients can start with a 5-day aligner change rate and gradually modify that rate until they change aligners at a rate where orthodontic forces match their individual biology, as accelerated by OrthoPulse® treatment.

**Weekly aligner changes are recommended for all Invisalign® treatments (with default staging protocol) for Invisalign® Full, Invisalign® Teen and Invisalign® Assist products. The decision to prescribe weekly aligner changes is at the doctor's discretion. Monitor tooth movements such as rotations, extrusions, and significant root movements; particularly blue and black movements in the Tooth Movement Assessment (TMA). Depending on the patient response to treatment, particularly mature adults, consider longer periods between aligner changes.*

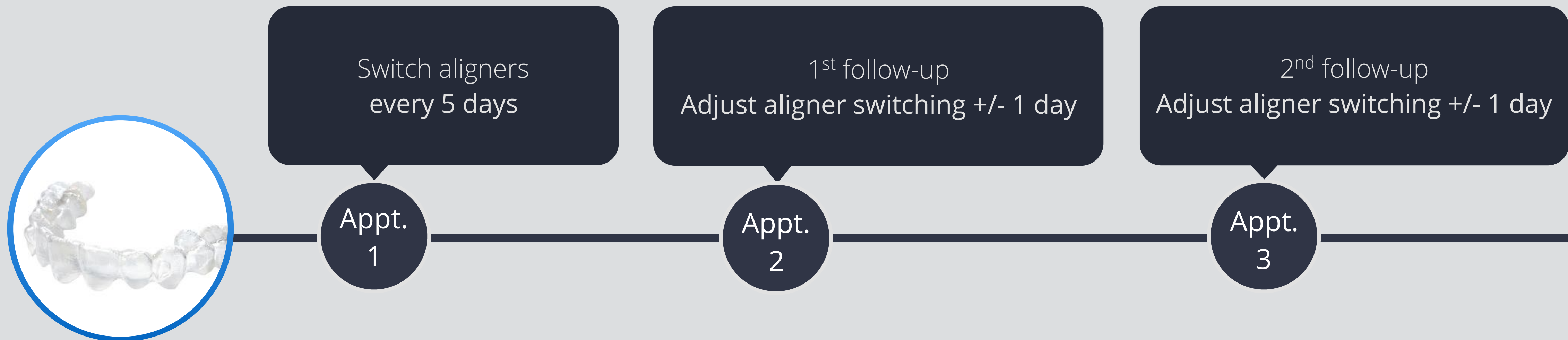
5 OPTIMIZING ALIGNER SWITCHING

Optimization of aligner switching with OrthoPulse®

The rate of changing aligners can reduce by one day at each follow up visit, assuming patients are tracking well with their aligners.

If tracking is not ideal, revert back to the previous interval.

Prescribe aligner switching intervals based on your clinical judgment, considering compliance, patient biology, etc.



5 OPTIMIZING ALIGNER SWITCHING

As treatment is accelerated, it becomes very important that aligner tracking is maintained.

Patients should be instructed to only advance to the next set of aligners when the current aligners fit perfectly. If current aligners are not fitting perfectly, the patient should wait one more day before switching to the next set of aligners.

A few tips to tell patients to ensure that aligners are fitting perfectly:

- Make sure that the aligners “snap in” over conventional attachments, and the edge of the aligner meets the surface of the tooth appropriately.
- Look for the absence of air gaps or bubbles inside the aligners. Keep in mind that sometimes air gaps can be intentional, especially around optimized attachments.
- Have patients bite down on “chewies,” to help seat the aligners over the teeth, when they replace their aligners after brushing their teeth



Appt.
1

Appt.
2

Appt.
3

6 PATIENT SCHEDULING

Based on the patient's individual aligner-switching schedule, give additional aligners to the patient in order to keep your customary interval between appointments.

Consider scheduling IPR and attachment placement accordingly in your ClinCheck plan.



Appt.
1

Appt.
2

Appt.
3

7 MONITORING COMPLIANCE

Patient Compliance with OrthoPulse® Can Be Easily Monitored Using the OrthoPulse® Mobile Apps for iOS and Android



- Good OrthoPulse® compliance (greater than 80%) can be indicative of good aligner wearing compliance, which is often difficult to assess. Patients who diligently perform daily OrthoPulse® treatments are likely also diligent in wearing aligners.
- Likewise, OrthoPulse® compliance below 80% may be an indicator of poor aligner wearing compliance.
- It is recommended you regularly monitor your patient's OrthoPulse® compliance with the OrthoPulse® app, on top of their aligner tracking, as a change in OrthoPulse® compliance could mean that corrective action may need to be taken.

8 MOTIVATING PATIENTS

Promoting good OrthoPulse® compliance

We recommend you monitor and promote the consistent, regular and daily use of OrthoPulse® by your patients.

Consistent communication to patients of the benefits of OrthoPulse® will help keep patients compliant.

When the patient is in the exam room

Consider using phrases like:

- “We will be using OrthoPulse® to speed up your treatment and help make some of the more difficult tooth movements occur.”
- “This is the same technology that some orthopaedic surgeons use for wound healing.”

If possible, show the patient the results of previous accelerated cases that used OrthoPulse®.

8 MOTIVATING PATIENTS

When the patient is in the chair

If the patient is using clear aligners, emphasize the rate that they will be changing their aligners during OrthoPulse® use, comparing it to the conventionally prescribed rate.

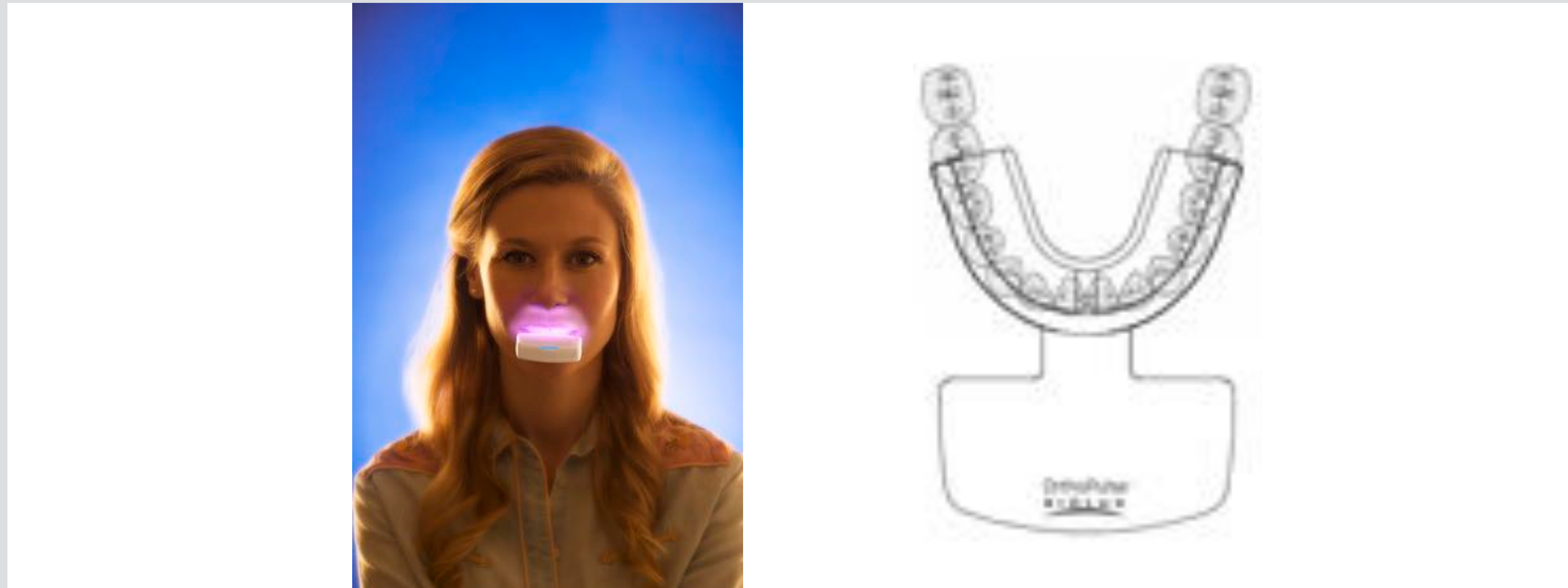
Consider describing how some patients find the warmth of the OrthoPulse® soothing during treatment, and that some find that it makes orthodontic treatment more comfortable.

Make it clear that OrthoPulse® treatment will be most effective if it is done everyday; and if compliance suffers, that the patient's treatment may last longer. If the patient is using aligners, explain that poor compliance may result in poor tracking, and therefore longer intervals between aligner changes.

9 ACCELERATING MOLARS

Depending on the arch size of the patient and fit of the OrthoPulse® mouthpiece, light acceleration of orthodontic tooth movement may not be fully expressed in the first and second molar regions.

However, OrthoPulse® treatment does produce a regional increase in blood flow, which may provide some increase in the rate of molar movement, even when not fully exposed to light.



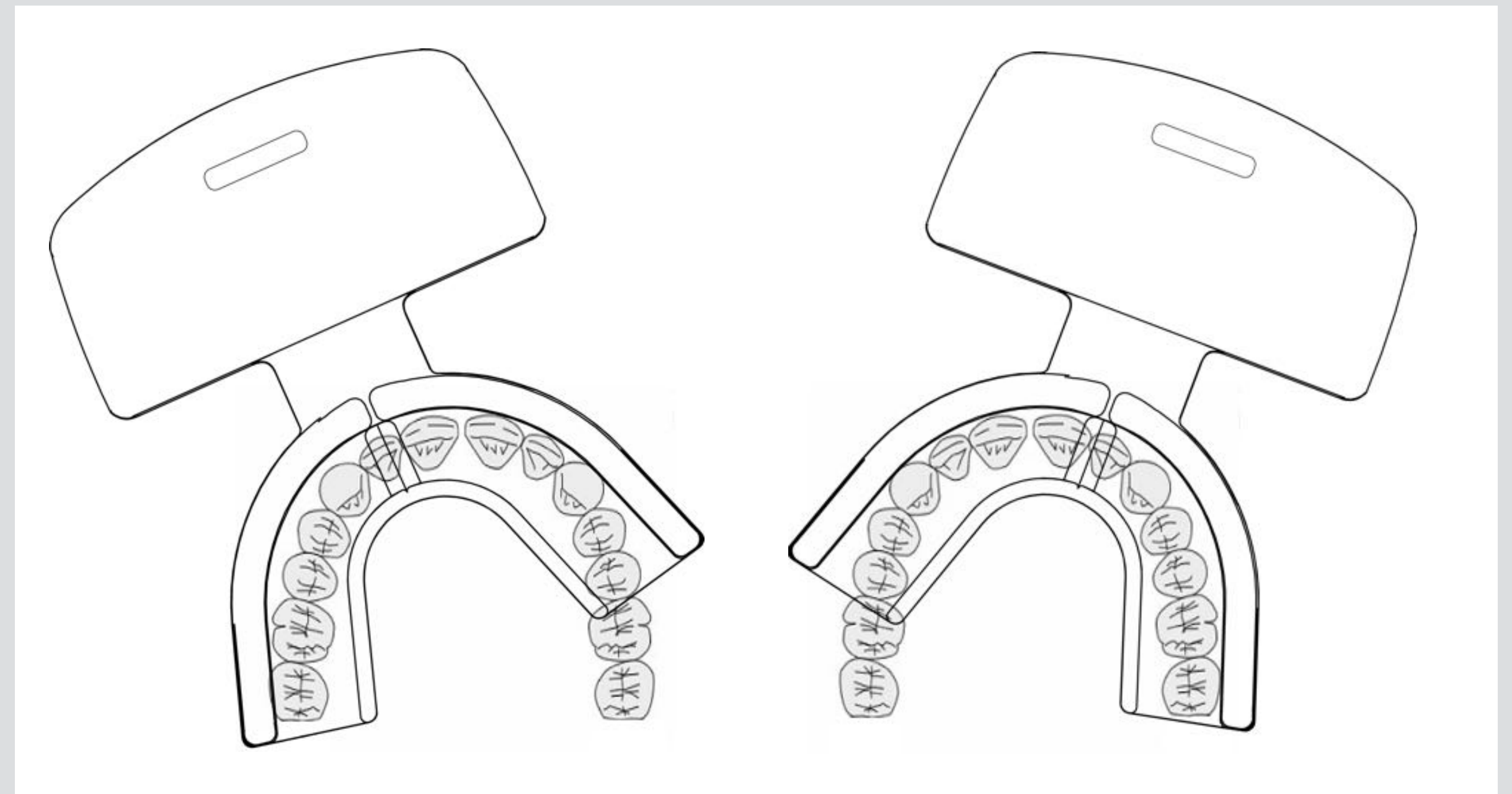
9 ACCELERATING MOLARS

In cases where significant molar movements are planned (distalization/expansion), optimization of molar movement can be performed.

It is recommended that the patient shifts the OrthoPulse® more posteriorly on each side, as far back as is comfortably tolerable, for a total of two 5-minute sessions on that arch.

If the OrthoPulse® is fully charged, two consecutive sessions may be completed.

In order to complete three sessions, the patient can do two sessions, charge the OrthoPulse® for 2 - 3 hours, and do the third session when the battery is once again fully charged.



10 RECOMMENDATIONS

- Encourage patients to set up a routine and do their OrthoPulse® treatments at the same time every day.
 - Help patients download the OrthoPulse® app at OrthoPulse® delivery so they can track their treatment progress and stay motivated.
 - If patients do not have a compatible mobile device, or are not syncing the OrthoPulse® at home, they should bring their OrthoPulse® to each appointment so that treatment data can be synced with the doctor's mobile device and app.
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- It is not recommended that patients use OrthoPulse® when teeth are not actively moving – for example, when waiting for new aligners, as it may result in a potential for bone maturation, which may slow the rate of bone remodelling.
 - Similarly, it is not recommended that patients use OrthoPulse® on surgery sites, to avoid accelerated bone healing, maturation, and densification. OrthoPulse® treatment can begin as soon as orthodontic treatment has started and tooth movement is activated.

For more information regarding the use of OrthoPulse®, including intended use, indications, and contraindications, please refer to the OrthoPulse® Instruction For Use document, included with every OrthoPulse® and available at orthopulse.com/start.



orthopulse.com

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If you or your patients have any further questions, consult our support page at orthopulse.com or contact us via email at support@orthopulse.com. We offer email support Monday through Friday, 8am to 4pm Pacific Time, as well as 8am to 5pm Central European Time and do our best to respond within one business day.