

**Program: Independent Toothbrushing Following a Video Model (Backward Chaining)**

**Rationale:** Many individuals with ASD find dental procedures aversive (from toothbrushing to dental exams/procedures) and may brush ineffectively as a result. This program is designed to help your learner engage in high-quality toothbrushing by following a video model (dental hygienist approved) to meet the bare minimum requirements of brushing to sufficiently remove build-up from teeth. Learners may need instruction to learn to follow the video model but then may use the video model daily (if needed) to maintain effective toothbrushing.

**Pre-requisite Skills:** generalized motor imitation, sufficient fine motor ability to open toothpaste & apply, ability to attend to video model, ability to sip water and spit into sink (without swallowing or spitting at people).

**Set-up:** Place toothbrush, paste, cup, and towel near sink. Keep data sheet and pen/pencil to collect data.

**Data collection:** If client correctly completed the step independently (no verbal, gestural, or physical prompts other than video) circle the "C" in the correct column. Otherwise, slash through the box. *Please note that because this is a backwards chaining protocol, you will be providing hand-over-hand prompting for most steps initially and thus most steps will be scored with a slash for incorrect.*

**Sd:** Time to brush your teeth (or something similar)

**Video Model at:** <https://youtu.be/7d6tL1ccV9Y>

**Procedure:** Use backward chaining by hand-over-hand prompting client to follow the video model & complete each step until #26. As client completes step #25, fade your hands away from theirs and wait to see if the client completes step #26 independently. If he does not complete step #26 independently within 5 s, then provide a verbal prompt (e.g., "spit in sink"). If client does not respond to verbal prompt, provide model prompt (by rewinding video to show step #26 or by modeling yourself). If client does not respond to verbal or model prompt, use hand-over-hand guidance to help him complete step #26 (you may need to lift cup to mouth to add water to mouth and squeeze cheeks gently to help eject water into sink). Do this until client can complete step #26 independently for 3 consecutive toothbrushing instances before fading out hand-over-hand prompting for step #25 and #26. Follow this pattern until client can independently brush his own teeth following the video model.

**Reinforcement:** Ensure the client has access to a high-value item/activity following completion of toothbrushing. It may be beneficial to allow a few minutes of access to this item/activity before brushing and bring it into bathroom with you. Then remove access and say "First brush teeth, then (*item/activity name*)".

[illegible]