

## Digital Oral Health Education package

A total of 6 videos were included in the digital oral health education (DOHE) package. They are publicly available and advertisement free and were created by either government bodies (New South Wales Health [NSW]), or relevant health bodies such as the British Heart Foundation, Australian Dental Association, and the European Federation of Periodontology (Table 1, Supplementary Videos 1- 6).

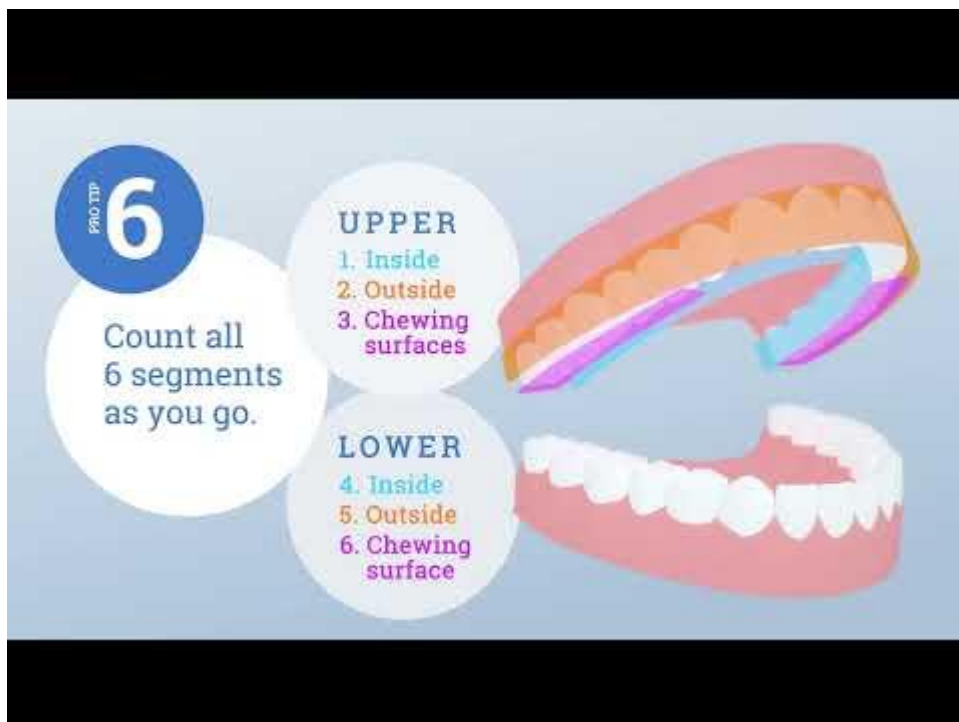
**Supplementary Table 1.** Video Links and time delivered.

|                                                                                  | Video link                                                              | Duration   | OHI+DOHE viewed | DOHE alone viewed | Control viewed |
|----------------------------------------------------------------------------------|-------------------------------------------------------------------------|------------|-----------------|-------------------|----------------|
| Video #1                                                                         |                                                                         |            |                 |                   |                |
| Perio & Cardio Animation <sup>1</sup>                                            | <a href="https://youtu.be/knXCaUZ0ry8">https://youtu.be/knXCaUZ0ry8</a> | 1 minute   | Baseline        | Baseline          | Final visit    |
| Video #2                                                                         |                                                                         | 1 minute   |                 |                   |                |
| Pro tips for better brushing <sup>2</sup>                                        | <a href="https://youtu.be/mziPlpoDgkE">https://youtu.be/mziPlpoDgkE</a> | 44 seconds | Baseline        | Baseline          | Final visit    |
| Video #3                                                                         |                                                                         | 1 minute   |                 |                   |                |
| Pro tips for better flossing <sup>3</sup>                                        | <a href="https://youtu.be/GJC1jEOC95s">https://youtu.be/GJC1jEOC95s</a> | 38 seconds | Baseline        | Baseline          | Final visit    |
| Video #4                                                                         |                                                                         | 2 minutes  |                 |                   |                |
| Can cleaning your teeth protect against diabetes and heart disease? <sup>4</sup> | <a href="https://youtu.be/xJl_h14a5EU">https://youtu.be/xJl_h14a5EU</a> | 44 seconds | 6-Weeks         | 6-Weeks           | Final visit    |
| Video #5                                                                         |                                                                         | 1 minute   |                 |                   |                |
| Pro tips for a healthy mouth <sup>5</sup>                                        | <a href="https://youtu.be/04uIOSaYzdc">https://youtu.be/04uIOSaYzdc</a> | 37 seconds | 6-weeks         | 6-weeks           | Final visit    |
| Video #6                                                                         |                                                                         | 1 minute   |                 |                   |                |
| Explaining gum disease <sup>6</sup>                                              | <a href="https://youtu.be/4VJtFTn43wc">https://youtu.be/4VJtFTn43wc</a> | 29 seconds | 6-weeks         | 6-weeks           | Final visit    |

**Supplementary Video 1:** EFP European Federation of Periodontology animation on periodontal disease and cardiovascular health.



**Supplementary Video 2:** NSW Health and Australian Dental Association pro tips for better brushing.



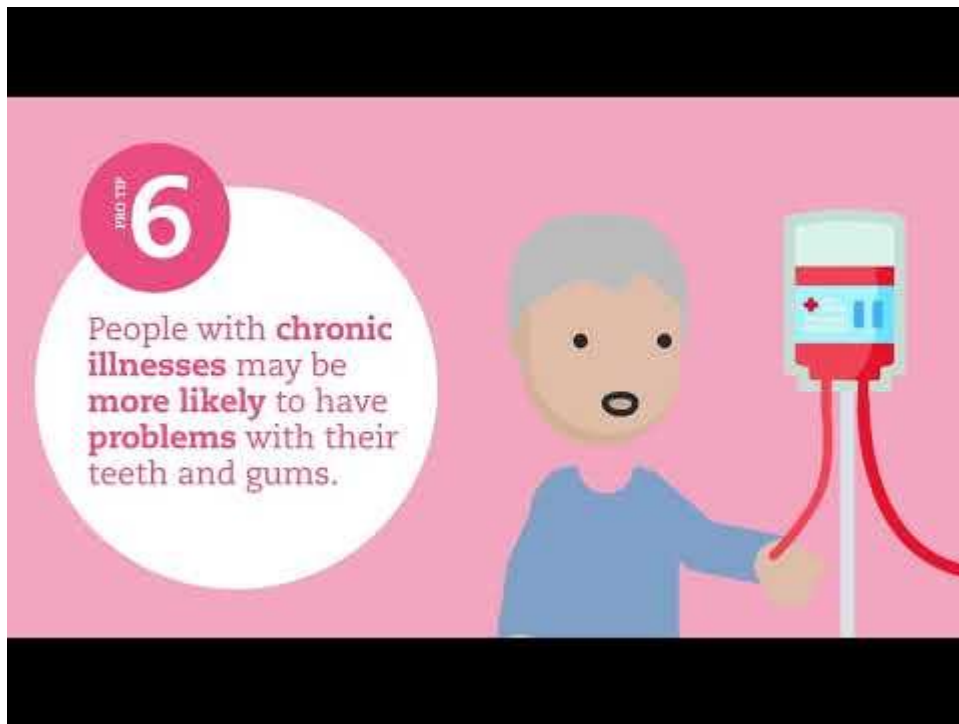
**Supplementary Video 3:** NSW Health and Australian Dental Association pro tips for better flossing.



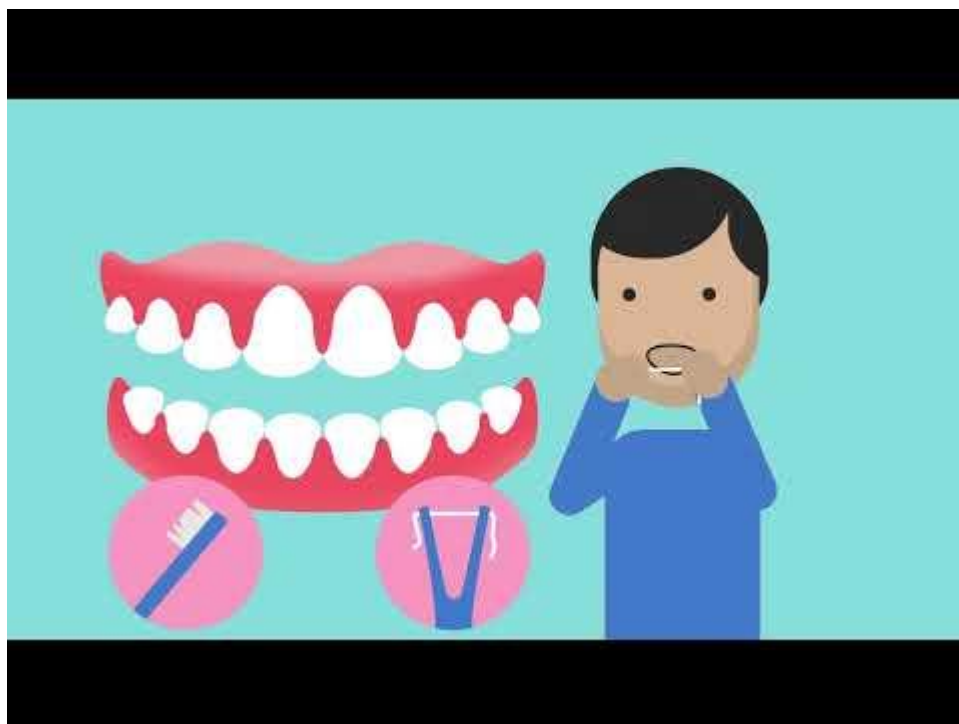
**Supplementary Video 4:** British Heart Foundation. Why brushing your teeth can health your cardiovascular system.



**Supplementary Video 5:** NSW Health and Australian Dental Association pro tips for a better mouth.



**Supplementary Video 6:** NSW Health and Australian Dental Association Explaining gum disease.



## Clinical measurements

SBI is assessed by inserting a dental probe under the gum in between teeth of the buccal sulcus of the first and fourth quadrant, and palatal/lingual sulcus surfaces of the second and third quadrant. Any evidence of bleeding on probing (BOP) is recorded as a positive reading.<sup>7</sup> Next, the API is completed by using a micro brush to place a small amount of the disclosing liquid on and around the interdental papillae on the opposite surfaces. After allowing the patient to rinse, interproximal sites with any remaining disclosing solution are recorded as a positive reading.<sup>8</sup> The number of positive readings are expressed as a percentage of the total readings.

API is calculated by placing disclosing solution between each tooth and then rinsing it off. The number of remaining disclosing sites are divided by total sites, and multiplied by 100.<sup>9</sup> For example, in a mouth with 32 teeth (28 reading points) a 1-point reduction = 4%. For the either API or SBI percentage, divide the number of positive BOP sites by the number of total tooth sites and times by 100. Indication of good oral hygiene is an API score of  $\leq 35\%$  and SBI score of  $\leq 25\%$  (Table 2).

Supplementary **Table 2.** Adapted API/SBI measurement results <sup>10</sup>

|                          | <b>API</b> | <b>SBI</b> |
|--------------------------|------------|------------|
| <b>Poor oral hygiene</b> | >35%       | >25%       |
| <b>Fair oral hygiene</b> | 35%        | 15-25%     |
| <b>Good oral hygiene</b> | <25%       | <15%       |

PSR is completed by dividing the mouth into sextants and, starting in sextant one, gently inserting a WHO probe into the gingival sulcus taking a 6-point measurement of each tooth. Specific markings on the probe relate to a measurement, indicating which code to classify the sextant as.<sup>11</sup> See Table 3 for code definitions.

Supplementary **Table 3.** Adapted PSR code definitions.<sup>11,12</sup>

| <b>Code</b> | <b>Clinical Signs</b>                                                                                                                                                                                                          |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>0</b>    | Absence of clinical signs: no calculus, or BOP<br>Coloured band on WHO probe completely visible.                                                                                                                               |
| <b>1</b>    | No calculus.<br>BOP<br>Coloured band on WHO probe completely visible.                                                                                                                                                          |
| <b>2</b>    | Supra and/or subgingival calculus<br>BOP<br>Coloured band on WHO probe completely visible.                                                                                                                                     |
| <b>3</b>    | Periodontal pocket 3.5mm-5.5mm<br>Coloured band on WHO probe partially visible                                                                                                                                                 |
| <b>4</b>    | Periodontal pocket >5.5mm deep<br>Coloured band on WHO probe no longer visible                                                                                                                                                 |
| <b>X</b>    | Sextant absent of dentition                                                                                                                                                                                                    |
| <b>*</b>    | Periodontal abnormalities which include:<br>Furcation involvement<br>Mobility<br>Mucogingival problems for example: exudate, severe oedema<br>>3.5mm recession<br>The * is recorded next to the sextant number code. E.g. "3*" |

## References

1. Perio & Cardio animation [YouTube Source]. 2020 [cited 2025 Jan 8]. Available from: <https://www.youtube.com/watch?v=knXCauZ0ry8>
2. Pro tips for better brushing [Internet]. 2021 [cited 2025 Jan 8]. Available from: <https://www.youtube.com/watch?v=mziPlpoDgkE>
3. Pro tips for better flossing [Internet]. 2021 [cited 2025 Jan 8]. Available from: <https://www.youtube.com/watch?v=GJC1jEOC95s>
4. Can cleaning your teeth protect against diabetes and heart disease? [Internet]. 2018. Available from: [https://www.youtube.com/watch?v=xJl\\_h14a5EU](https://www.youtube.com/watch?v=xJl_h14a5EU)
5. Pro tips for a healthy mouth [Internet]. 2021 [cited 2025 Jan 8]. Available from: <https://www.youtube.com/watch?v=04uIOSaYzdc>
6. Explaining gum disease [Internet]. 2021 [cited 2025 Jan 8]. Available from: <https://www.youtube.com/watch?v=4VJtFTn43wc>

7. Mühlemann H, Son S. Gingival sulcus bleeding--a leading symptom in initial gingivitis. *Helv Odontol Acta*. 1971;15(2):107–13.
8. Lange D. Accessory treatment in systemic periodontitis management. *Zahnärztliche Welt*. 1975;8:366–74.
9. Lange D, Plagmann H, Eenboom A, Promesberger A. Clinical Assessment Procedures for Objectifying Oral Hygiene. *Dtsch Zahnärztliche Z*. 1977 Jan;32(1):44–7.
10. iPerioPal. SBI/API Index Sulcus Bleeding Index (SBI and Approximal Plaque Index (API) [Internet]. Available from: <https://www.iperiopal.com/sbi-api-index/>
11. Mallonee L, Wyche C. Indices and Scoring Methods. In: *Clinical Practice of the Dental Hygienist*. 14th ed. Burlington: Jones & Bartlett Learning, LLC; 2023. p. 852–94.
12. Gehrig J, Shin D, editors. Clinical Periodontal Assessment. In: *Foundations of Periodontics for the Dental Hygienist*. Sixth Edition. Philadelphia: Jones & Bartlett Learning, LLC; 2024. p. 627–57.