



Australian Government
Repatriation Medical Authority

Statement of Principles
concerning
TOOTH WEAR
(Reasonable Hypothesis)
(No. 52 of 2017)

The Repatriation Medical Authority determines the following Statement of Principles under subsection 196B(2) of the *Veterans' Entitlements Act 1986*.

Dated 18 August 2017

The Common Seal of the
Repatriation Medical Authority
was affixed to this instrument
at the direction of:

A handwritten signature in black ink, appearing to read 'N. Saunders'.

Professor Nicholas Saunders AO
Chairperson

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1 Name

This is the Statement of Principles concerning *tooth wear (Reasonable Hypothesis)* (No. 52 of 2017).

2 Commencement

This instrument commences on 18 September 2017.

3 Authority

This instrument is made under subsection 196B(2) of the *Veterans' Entitlements Act 1986*.

4 Application

This instrument applies to a claim to which section 120A of the VEA or section 338 of the *Military Rehabilitation and Compensation Act 2004* applies.

5 Definitions

The terms defined in the Schedule 1 - Dictionary have the meaning given when used in this instrument.

6 Kind of injury, disease or death to which this Statement of Principles relates

- (1) This Statement of Principles is about tooth wear and death from tooth wear.

Meaning of tooth wear

- (2) For the purposes of this Statement of Principles, tooth wear means:
- (a) the localised or generalised loss of dental hard tissues (enamel, dentine and dental restorative material) due to an intrinsic or extrinsic mechanical or chemical process; and
 - (b) where dentine is exposed on at least one tooth surface, and causes:
 - (i) severe tooth pain or sensitivity; or
 - (ii) significant impairment of effective tooth function; and
 - (c) is confirmed by a dental clinician using a recognised tooth wear evaluation system; and
 - (d) comprises:
 - (i) dental abrasion;
 - (ii) dental attrition; and
 - (iii) dental erosion; and

- (e) excludes:
 - (i) mild tooth wear which is confined to the enamel; and
 - (ii) loss of tooth substance caused by dental caries or discrete dental trauma.

Note 1: Tooth wear may cause tooth pain or dentine hypersensitivity that is persistent, or which occurs with eating, drinking or tooth cleaning, and which is of sufficient severity to interfere with normal oral function or require dental consultation. Masticatory function can be compromised by tooth pain and reduced vertical and horizontal dimension of the affected dentition.

Note 2: Dental reconstruction may be required.

Note 3: *dental abrasion*, *dental attrition* and *dental erosion* are defined in the Schedule 1 - Dictionary.

- (3) While tooth wear attracts ICD-10-AM code K03.0, K03.1 or K03.2, in applying this Statement of Principles the meaning of tooth wear is that given in subsection (2).
- (4) For subsection (3), a reference to an ICD-10-AM code is a reference to the code assigned to a particular kind of injury or disease in *The International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification (ICD-10-AM)*, Ninth Edition, effective date of 1 July 2015, copyrighted by the Independent Hospital Pricing Authority, ISBN 978-1-76007-020-5.

Death from tooth wear

- (5) For the purposes of this Statement of Principles, tooth wear, in relation to a person, includes death from a terminal event or condition that was contributed to by the person's tooth wear.

Note: *terminal event* is defined in the Schedule 1 – Dictionary.

7 Basis for determining the factors

The Repatriation Medical Authority is of the view that there is sound medical-scientific evidence that indicates that tooth wear and death from tooth wear can be related to relevant service rendered by veterans, members of Peacekeeping Forces, or members of the Forces under the VEA, or members under the MRCA.

Note: *relevant service* is defined in the Schedule 1 – Dictionary.

8 Factors that must exist

At least one of the following factors must as a minimum exist before it can be said that a reasonable hypothesis has been raised connecting tooth wear or death from tooth wear with the circumstances of a person's relevant service:

- (1) for dental abrasion only, breathing dust in air at a concentration of greater than five milligrams per cubic metre:

- (a) for a cumulative period of at least 10 000 hours before the clinical onset of tooth wear; and
- (b) where that exposure has ceased, the clinical onset of tooth wear has occurred within six months of cessation;

Note: *dental abrasion* and *dust* are defined in the Schedule 1 - Dictionary.

- (2) for dental attrition only, having bruxism at the time of the clinical onset of tooth wear;

Note: *dental attrition* is defined in the Schedule 1 - Dictionary.

- (3) for dental erosion only:

- (a) consuming an average of at least 750 millilitres per day of any combination of drinks from the specified list of erosive drinks:
 - (i) for a continuous period of at least two years before the clinical onset of tooth wear; and
 - (ii) where that exposure has ceased, the clinical onset of tooth wear has occurred within one year of cessation;

Note: *dental erosion* and *specified list of erosive drinks* are defined in the Schedule 1 - Dictionary.

- (b) having gastro-oesophageal reflux disease within the two years before the clinical onset of tooth wear;
- (c) having an eating disorder at the time of the clinical onset of tooth wear;
- (d) having alcohol use disorder at the time of the clinical onset of tooth wear;
- (e) having xerostomia for at least the six months before the clinical onset of tooth wear;

Note: *xerostomia* is defined in the Schedule 1 - Dictionary.

- (f) having hyperemesis gravidarum within the three months before the clinical onset of tooth wear;

Note: *hyperemesis gravidarum* is defined in the Schedule 1 - Dictionary.

- (g) swimming in a swimming pool with a pH below 5.5 for a cumulative period of at least 25 hours within the 30 days before the clinical onset of tooth wear;
- (h) taking a drug from the specified list of drugs, on average at least daily, for a continuous period of at least the six months before the clinical onset of tooth wear, and where:
 - (i) a dissolved solution of the drug is swilled around the teeth; or
 - (ii) the drug is retained in the mouth adjacent to the affected site; or

Note: *specified list of drugs* is defined in the Schedule 1 - Dictionary.

- (i) breathing fumes of a substance from the specified list of acidic substances at a concentration of greater than 0.5 milligrams per cubic metre:
 - (i) for a cumulative period of at least 1 000 hours before the clinical onset of tooth wear; and
 - (ii) where that exposure has ceased, the clinical onset of tooth wear has occurred within six months of cessation;

Note: *fumes* and *specified list of acidic substances* are defined in the Schedule 1 - Dictionary.

- (4) for dental abrasion only, breathing dust in air at a concentration of greater than five milligrams per cubic metre:
 - (a) for a cumulative period of at least 10 000 hours before the clinical worsening of tooth wear; and
 - (b) where that exposure has ceased, the clinical worsening of tooth wear has occurred within six months of cessation;

Note: *dental abrasion* and *dust* are defined in the Schedule 1 - Dictionary.

- (5) for dental attrition only, having bruxism at the time of the clinical worsening of tooth wear;

Note: *dental attrition* is defined in the Schedule 1 - Dictionary.

- (6) for dental erosion only:
 - (a) consuming an average of at least 750 millilitres per day of any combination of drinks from the specified list of erosive drinks:
 - (i) for a continuous period of at least two years before the clinical worsening of tooth wear; and
 - (ii) where that exposure has ceased, the clinical worsening of tooth wear has occurred within one year of cessation;

Note: *dental erosion* and *specified list of erosive drinks* are defined in the Schedule 1 - Dictionary.

- (b) having gastro-oesophageal reflux disease within the two years before the clinical worsening of tooth wear;
- (c) having an eating disorder at the time of the clinical worsening of tooth wear;
- (d) having alcohol use disorder at the time of the clinical worsening of tooth wear;
- (e) having xerostomia for at least the six months before the clinical worsening of tooth wear;

Note: *xerostomia* is defined in the Schedule 1 - Dictionary.

- (f) having hyperemesis gravidarum within the three months before the clinical worsening of tooth wear;

Note: *hyperemesis gravidarum* is defined in the Schedule 1 - Dictionary.

- (g) swimming in a swimming pool with a pH below 5.5 for a cumulative period of at least 25 hours within the 30 days before the clinical worsening of tooth wear;
- (h) taking a drug from the specified list of drugs, on average at least daily, for a continuous period of at least the six months before the clinical worsening of tooth wear, and where:
 - (i) a dissolved solution of the drug is swilled around the teeth; or
 - (ii) the drug is retained in the mouth adjacent to the affected site; or

Note: *specified list of drugs* is defined in the Schedule 1 - Dictionary.

- (i) breathing fumes of a substance from the specified list of acidic substances at a concentration of greater than 0.5 milligrams per cubic metre:
 - (i) for a cumulative period of at least 1 000 hours before the clinical worsening of tooth wear; and
 - (ii) where that exposure has ceased, the clinical worsening of tooth wear has occurred within six months of cessation;

Note: *fumes* and *specified list of acidic substances* are defined in the Schedule 1 - Dictionary.

- (7) inability to obtain appropriate clinical management for tooth wear.

9 Relationship to service

- (1) The existence in a person of any factor referred to in section 8, must be related to the relevant service rendered by the person.
- (2) The factors set out in subsections 8(4) to 8(7) apply only to material contribution to, or aggravation of, tooth wear where the person's tooth wear was suffered or contracted before or during (but did not arise out of) the person's relevant service.

10 Factors referring to an injury or disease covered by another Statement of Principles

In this Statement of Principles:

- (1) if a factor referred to in section 8 applies in relation to a person; and
- (2) that factor refers to an injury or disease in respect of which a Statement of Principles has been determined under subsection 196B(2) of the VEA;

then the factors in that Statement of Principles apply in accordance with the terms of that Statement of Principles as in force from time to time.

Schedule 1 - Dictionary

Note: See Section 5

1 Definitions

In this instrument:

dental abrasion means the loss of tooth substance through friction of exogenous material that is forced over the surfaces of the tooth, independent of occlusal contact.

dental attrition means the loss of hard tooth substance from occlusal contact between an opposing tooth or teeth, or dental restoration or dental restorations.

dental erosion means corrosion of tooth structure by a nonbacterial chemical, biochemical or electrochemical process.

dust means airborne particulate matter consisting of poorly soluble solid particles of organic or inorganic matter, such as coal, grain, metal, rock or wood, of diameter between 0.5 micrometres and 75 micrometres, which settle slowly under the influence of gravity, and which are formed by natural forces or mechanical processes, such as crushing, grinding, milling, drilling, demolition, shovelling or sweeping.

fumes means aerosols or vapours arising through industrial processes or from workplace practices that involve the refining, manufacture or use of the stated substance.

hyperemesis gravidarum means a complication of pregnancy that is characterised by severe nausea and vomiting, with weight loss and dehydration.

MRCA means the *Military Rehabilitation and Compensation Act 2004*.

relevant service means:

- (a) operational service under the VEA;
- (b) peacekeeping service under the VEA;
- (c) hazardous service under the VEA;
- (d) British nuclear test defence service under the VEA;
- (e) warlike service under the MRCA; or
- (f) non-warlike service under the MRCA.

Note: *MRCA* and *VEA* are also defined in the Schedule 1 - Dictionary.

specified list of acidic substances means:

- (a) hydrochloric acid;
- (b) hydrofluoric acid;
- (c) nitric acid;
- (d) phosphoric acid; or
- (e) sulphuric acid.

specified list of drugs means:

- (a) aspirin powder;
- (b) chewable aspirin tablets;
- (c) chewable hydrochloric acid tablets; or
- (d) chewable Vitamin C tablets.

specified list of erosive drinks means:

- (a) alcopops or alcoholic cooler drinks;
- (b) any beverage with a pH value below 4.0;
- (c) carbonated soft drinks;
- (d) flavoured mineral water;
- (e) herbal and fruit tea (without milk);
- (f) natural or processed citrus, apple or other acidic fruit juices;
- (g) non-calcium-enriched sports drinks; or
- (h) wine.

terminal event means the proximate or ultimate cause of death and includes the following:

- (a) pneumonia;
- (b) respiratory failure;
- (c) cardiac arrest;
- (d) circulatory failure; or
- (e) cessation of brain function.

tooth wear—see subsection 6(2).

VEA means the *Veterans' Entitlements Act 1986*.

xerostomia means dry mouth resulting from severely reduced saliva flow and which results from various medical conditions, including Sjogren's syndrome, or a wide variety of drugs, including anticholinergics, tricyclic antidepressants and amphetamines.