

Revocation and Determination

of

Statement of Principles concerning

DIABETES MELLITUS

ICD-10-AM CODES: E10, E11, E12, E13, E14

Veterans' Entitlements Act 1986

1. The Repatriation Medical Authority under subsection **196B(2)** of the *Veterans' Entitlements Act 1986* (the Act):
 - (a) revokes Instrument No.46 of 1999; and
 - (b) determines in its place the following Statement of Principles.

Kind of injury, disease or death

2. (a) This Statement of Principles is about **diabetes mellitus** and **death from diabetes mellitus**.
- (b) For the purposes of this Statement of Principles, “**diabetes mellitus**” means an endocrine disease characterised by:
 - (i) a fasting venous plasma glucose concentration equal to or greater than 7.8 millimoles per litre on at least two separate occasions; or
 - (ii) a venous plasma glucose concentration equal to or greater than 11.1 millimoles per litre both within two hours and at two hours after ingestion of 75 grams of glucose,

attracting ICD-10-AM code E10, E11, E12, E13 or E14.

Basis for determining the factors

3. The Repatriation Medical Authority is of the view that there is sound medical-scientific evidence that indicates that **diabetes mellitus and death from diabetes mellitus** can be related to relevant service rendered by veterans, members of Peacekeeping Forces, or members of the Forces.

Factors that must be related to service

4. Subject to clause 6, at least one of the factors set out in clause 5 must be related to any relevant service rendered by the person.

Factors

5. The factors that must as a minimum exist before it can be said that a reasonable hypothesis has been raised connecting **diabetes mellitus** or **death from diabetes mellitus** with the circumstances of a person's relevant service are:
 - (a) in relation to *type 1* diabetes mellitus, being infected with rubella virus or Coxsackie B virus before the clinical onset of diabetes mellitus; or
 - (b) in relation to *type 2* diabetes mellitus, being obese for a period of at least ten years before the clinical onset of diabetes mellitus; or
 - (c) in relation to *type 2* diabetes mellitus, smoking at least 10 pack years of cigarettes or the equivalent thereof in other tobacco products, before the clinical onset of diabetes mellitus, and where smoking has ceased, the clinical onset has occurred within 10 years of cessation; or
 - (d) suffering from gestational diabetes before the clinical onset of diabetes mellitus; or
 - (e) suffering from acute pancreatitis or chronic pancreatitis before the clinical onset of diabetes mellitus; or
 - (f) suffering from pancreatic cancer before the clinical onset of diabetes mellitus; or
 - (g) undergoing surgery to the pancreas before the clinical onset of diabetes mellitus; or
 - (h) suffering from cystic fibrosis before the clinical onset of diabetes mellitus; or
 - (j) suffering from haemochromatosis before the clinical onset of diabetes mellitus; or

- (k) suffering from Cushing's syndrome before the clinical onset of diabetes mellitus; or
- (m) suffering from acromegaly before the clinical onset of diabetes mellitus; or
- (n) suffering from pheochromocytoma before the clinical onset of diabetes mellitus; or
- (o) having been treated with pentamidine within the two years immediately before the clinical onset of diabetes mellitus; or
- (p) being treated with a drug reported to have caused hyperglycaemia, for a condition for which the drug cannot be ceased or substituted, at the time of the clinical onset of diabetes mellitus; or
- (q) being treated with immunosuppressive drugs, for organ transplantation, at the time of the clinical onset of diabetes mellitus; or
- (r) undertaking work involving hand decanting or spraying of 2,3,7,8-TCDD contaminated herbicides; or undertaking work involving filling, cleaning and maintenance of spray equipment used to apply 2,3,7,8-TCDD contaminated herbicides on more days than not, during a period of at least six months before the clinical onset of diabetes mellitus; or
- (s) the presence of a serum 2,3,7,8-TCDD level of at least 5 ppt at the time of the clinical onset of diabetes mellitus; or
- (t) in relation to *type 1* diabetes mellitus, being infected with rubella virus or Coxsackie B virus before the clinical worsening of diabetes mellitus; or
- (u) in relation to *type 2* diabetes mellitus, being obese for a period of at least ten years before the clinical worsening of diabetes mellitus; or
- (v) in relation to *type 2* diabetes mellitus, smoking at least 10 pack years of cigarettes or the equivalent thereof in other tobacco products before the clinical worsening of diabetes mellitus, and where smoking has ceased, the clinical worsening has occurred within 10 years of cessation; or
- (w) being pregnant before the clinical worsening of diabetes mellitus; or

- (x) suffering from acute pancreatitis or chronic pancreatitis before the clinical worsening of diabetes mellitus; or
- (y) suffering from pancreatic cancer before the clinical worsening of diabetes mellitus; or
- (z) undergoing surgery to the pancreas before the clinical worsening of diabetes mellitus; or
- (za) suffering from cystic fibrosis before the clinical worsening of diabetes mellitus; or
- (zb) suffering from haemochromatosis before the clinical worsening of diabetes mellitus; or
- (zc) suffering from Cushing's syndrome before the clinical worsening of diabetes mellitus; or
- (zd) suffering from acromegaly before the clinical worsening of diabetes mellitus; or
- (ze) suffering from pheochromocytoma before the clinical worsening of diabetes mellitus; or
- (zf) having been treated with pentamidine within the two years immediately before the clinical worsening of diabetes mellitus; or
- (zg) being treated with a drug reported to have caused hyperglycaemia, for a condition for which the drug cannot be ceased or substituted, at the time of the clinical worsening of diabetes mellitus; or
- (zh) being treated with immunosuppressive drugs, for organ transplantation, at the time of the clinical worsening of diabetes mellitus; or
- (zj) inability to obtain appropriate clinical management for diabetes mellitus.

Factors that apply only to material contribution or aggravation

- 6.** Paragraphs **5(t) to 5(zj)** apply only to material contribution to, or aggravation of, diabetes mellitus where the person's diabetes mellitus was suffered or contracted before or during (but not arising out of) the person's relevant service; paragraph 8(1)(e), 9(1)(e), 70(5)(d) or 70(5A)(d) of the Act refers.

Inclusion of Statements of Principles

7. In this Statement of Principles if a relevant factor applies and that factor includes an injury or disease in respect of which there is a Statement of Principles then the factors in that last mentioned Statement of Principles apply in accordance with the terms of that Statement of Principles.

Other definitions

8. For the purposes of this Statement of Principles:

“2,3,7,8-TCDD contaminated herbicides” means Agent Orange and other herbicides containing 2,4,5-trichlorophenoxyacetic acid alone or in combination;

“acromegaly” means a chronic disease of adults due to hypersecretion of the pituitary growth hormone and characterised by enlargement of many parts of the skeleton especially the distal portions, the nose, ears, jaws, fingers and toes;

“acute pancreatitis” means an acute inflammatory condition due to auto-digestion of pancreatic tissue by its own enzymes, typically presenting with abdominal pain, and usually associated with raised levels of pancreatic enzymes in blood or urine;

“being obese” means an increase in body weight by way of fat accumulation beyond an arbitrary limit, and due to a cause specified in the Repatriation Medical Authority’s Statement about the causes of “being obese” signed by the Chairman of the Authority on 16 August 1996.

The measurement used to define “being obese” is the Body Mass Index (BMI).

The $BMI = W/H^2$ and where:

W is the person’s weight in kilograms and
H is the person’s height in metres.

“Being obese” is considered to be present when the BMI is 30 or greater. This definition excludes weight gain not resulting from fat deposition such as gross oedema, peritoneal or pleural effusion, or muscle hypertrophy. “Being obese” develops when energy intake is in excess of expenditure for a sustained period of time.

For a factor to be included as a cause of “being obese” it must have resulted in a significant weight gain, of the order of a 20% increase in baseline weight, and in association with a BMI of 30 or greater;

“chronic pancreatitis” means a continuing inflammatory disease of the pancreas characterised by irreversible morphological change that is typically associated with pain or permanent impairment of exocrine (steatorrhoea) and endocrine (diabetes mellitus) function or both;

“Coxsackie B virus” means one of a heterogeneous group of viruses of the genus *Enterovirus*, that in humans has a tendency to affect the meninges and occasionally the cerebrum, but which can cause a wide spectrum of clinical illness;

“Cushing’s syndrome” means a condition due to the increased production of glucocorticoids in the adrenal gland, or increased blood levels of glucocorticoids from exogenous therapeutic administration of glucocorticoids or adrenocorticotrophic hormone (ACTH);

“cystic fibrosis” means a generalised, autosomal recessive disorder, in which there is widespread dysfunction of the exocrine glands, characterised by signs of chronic pulmonary disease, pancreatic deficiency, abnormally high levels of electrolytes in the sweat, and occasionally by biliary cirrhosis;

“death from diabetes mellitus” in relation to a person includes death from a terminal event or condition that was contributed to by the person’s diabetes mellitus;

“gestational diabetes” means carbohydrate intolerance of variable severity with onset or first recognition during pregnancy;

“haemochromatosis” means a genetic disorder of iron storage in which an inappropriate increase in intestinal iron absorption results in the deposition of excessive quantities of iron in parenchymal cells, with eventual tissue damage and functional impairment of the organs involved, especially the liver, pancreas, heart and pituitary;

“ICD-10-AM code” means a number assigned to a particular kind of injury or disease in The International Statistical Classification of Diseases and Related Health Problems, 10th revision, Australian Modification (ICD-10-AM), effective date of 1 July 1998, copyrighted by the National Centre for Classification in Health, Sydney, NSW, and having ISBN 1 86451 340 3;

“immunosuppressive drugs” means drugs or agents capable of suppressing immune responses;

“pack years of cigarettes or the equivalent thereof, in other tobacco products” means a calculation of consumption where one pack year of

cigarettes equals twenty tailor made cigarettes (being the “standard” cigarette pack contents) per day for a period of one calendar year, or 7 300 cigarettes. One tailor made cigarette approximates one gram of tobacco or one gram of cigar or pipe tobacco by weight. One pack year of tailor made cigarettes equates to 7 300 cigarettes, or 7.3kg of smoking tobacco by weight. Tobacco products means either cigarettes, pipe tobacco or cigars smoked, alone or in any combination;

“pancreatic cancer” means a malignant neoplasm of the cells of the pancreas;

“phaeochromocytoma” means a neoplasm of chromaffin tissue usually located in the adrenal medulla or sympathetic ganglion, which produces, stores and secretes catecholamines;

“ppt” means parts per trillion;

“relevant service” means:

- (a) operational service; or
- (b) peacekeeping service; or
- (c) hazardous service;

“reported to have caused hyperglycaemia” means a drug reported to have caused hyperglycaemia in the published peer-reviewed medical literature;

“rubella virus” means a member of the Togavirus family which causes rubella (German measles);

“serum 2,3,7,8-TCDD” means 2,3,7,8-tetrachlorodibenzo-para-dioxin as measured from an appropriately derived blood sample;

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

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

“type 1 diabetes mellitus” means insulin dependent diabetes mellitus. Insulin dependence is not equivalent to insulin therapy. Rather, it means that the patient is at risk of ketoacidosis in the absence of insulin;

“type 2 diabetes mellitus” means non-insulin dependent diabetes mellitus.

Note: The National Diabetes Group Classification is detailed in the table:

CLASS	CLINICAL CHARACTERISTICS	DIAGNOSTIC CRITERIA
insulin dependent diabetes mellitus (IDDM, type 1)	Ketosis prone; dependent on insulin for survival; usual onset in youth; absolute insulin deficiency; anti-islet cell antibodies often present at diagnosis	unequivocal elevation of blood glucose with polyuria, polydipsia, weight loss and weakness
non-insulin dependent diabetes mellitus (NIDDM, type 2)	Ketosis resistant, usual onset after 40 years of age; majority obese; insulin resistance often present with inadequate insulin secretion	same criteria for IDDM blood glucose levels as per definition of diabetes mellitus

Application

9. This Instrument applies to all matters to which section 120A of the Act applies.

Dated this *Twenty-eighth* day of *October* 1999

The Common Seal of the
Repatriation Medical Authority
was affixed to this instrument
in the presence of:

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KEN DONALD
CHAIRMAN