

Adult—waist circumference risk indicator, Caucasian adult code N

Identifying and definitional attributes

Metadata item type:	Data Element
Short name:	Waist circumference risk indicator - adults
METEOR identifier:	270205
Registration status:	<ul style="list-style-type: none">Health, Standard 01/03/2005
Definition:	The sex specific category of risk of metabolic complications associated with excess abdominal adiposity in adult Caucasians, as represented by a code.
Data Element Concept:	Adult—waist circumference risk indicator

Value domain attributes

Representational attributes

Representation class:	Code								
Data type:	Number								
Format:	N								
Maximum character length:	1								
Permissible values:	<table><thead><tr><th>Value</th><th>Meaning</th></tr></thead><tbody><tr><td>1</td><td>Not at risk (male waist circumference less than 94 cm, female waist circumference less than 80 cm)</td></tr><tr><td>2</td><td>Increased (male waist circumference \geq 94 cm, female waist circumference \geq 80 cm)</td></tr><tr><td>3</td><td>Substantially increased (male waist circumference \geq 102 cm, female waist circumference \geq 88 cm)</td></tr></tbody></table>	Value	Meaning	1	Not at risk (male waist circumference less than 94 cm, female waist circumference less than 80 cm)	2	Increased (male waist circumference \geq 94 cm, female waist circumference \geq 80 cm)	3	Substantially increased (male waist circumference \geq 102 cm, female waist circumference \geq 88 cm)
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Supplementary values:	<table><thead><tr><th>Value</th><th>Meaning</th></tr></thead><tbody><tr><td>9</td><td>Not stated/inadequately described</td></tr></tbody></table>	Value	Meaning	9	Not stated/inadequately described				
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Data element attributes

Collection and usage attributes

Guide for use:	<p>This metadata item cannot be determined if waist circumference measured has not been collected (i.e. is coded to 999.9) and/or sex is not stated (i.e. coded to 9).</p> <p>This metadata item applies to persons aged 18 years or older.</p>
Collection methods:	This metadata item should be derived after the data entry of waist circumference measured. It should be stored on the raw data set as a continuous variable and should not be aggregated or rounded.

Comments: This metadata item is recommended for use in population surveys and health care settings.

Recent evidence suggests that waist circumference may provide a more practical correlate of abdominal fat distribution and associated ill health.

The identification of risk using waist circumference is population-specific and will depend on levels of obesity and other risk factors for cardiovascular disease and non-insulin dependent diabetes mellitus.

Populations differ in the level of risk associated with a particular waist circumference, so that globally applicable cut-off points cannot be developed. For example, complications associated with abdominal fat in black women and those of South Asian descent are markedly higher for a given level of BMI than in Europeans. Also, although women have almost the same absolute risk of coronary heart disease as men at the same WHR, they show increases in relative risk of coronary heart disease at lower waist circumferences than men. Thus, there is a need to develop sex-specific waist circumference cut-off points appropriate for different populations. Hence, the cut-off points used for this metadata item are associated with obesity in Caucasians. This issue is being investigated further.

Cut-off points for children and adolescents are also being developed. Research shows that a high childhood BMI and high trunk skin fold values are predictive of abdominal obesity as an adult and waist circumference measures in childhood track well into adulthood.

It is recommended that in population surveys, sociodemographic data including ethnicity should be collected, as well as other risk factors including physiological status (e.g. pregnancy), physical activity, smoking and alcohol consumption. Summary statistics may need to be adjusted for these variables.


National health metadata item currently exist for sex, date of birth, country of birth and Indigenous status and smoking. Metadata items are being developed for physical activity.

Source and reference attributes

Origin: World Health Organization

Reference documents: Obesity: Preventing and Managing the Global Epidemic: Report of a World Health Organization (WHO) Expert Committee. Geneva: WHO, 2000 as described by Han TS et al (1995)

Relational attributes

Related metadata references: Supersedes  [Waist circumference risk indicator - adults, version 1, Derived DE, NHDD, NHIMG, Superseded 01/03/2005.pdf](#) (20.5 KB) *No registration status*