

Body mass index

Entity: OBSERVATION

Concept description:			Identification:		
Calculated measurement which compares a person's weight and height.			Id: openEHR-EHR-OBSERVATION.body_mass_index.v2 Reference model: openEHR_EHR		
Purpose	Use	Misuse	Copyright	References	Contact
To record the Body Mass Index (BMI) of a person. Body Mass Index is a calculated ratio describing how an individual's body weight relates to the weight that is regarded as normal, or desirable, for the individual's height.	Use to record the Body Mass Index of both adults and children. Use to enter the Body Mass Index either manually (ie calculated and directly entered by the clinician), or automatically (ie calculation and entry is done automatically by a software application, based on separate height and weight measurements). Formulas: Body Mass Index is commonly calculated as $\text{weight (kg)} / [\text{height (m)}^2]$. This is the assumed formula unless otherwise specified in the Formula element within Protocol. Alternatively estimate Body Mass Index using pounds and inches: $\text{weight (lb)} / [\text{height (in)}^2] \times 703$ (with ounces (oz) and fractions changed to decimal values). In some situations the Body Mass Index formula is corrected eg for use in amputees - this specific formula can be recorded as part of the protocol. Alternatively the common Body Mass Index calculation can be used with	Not intended to record information regarding Body Mass Index percentiles - these will be recorded in separate archetypes.	© openEHR Foundation	Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults: The Evidence Report [Internet]. Bethesda (MD): National Heart, Lung, and Blood Institute; NIH Publication No. 98-4083, Sep 1998, [cited 2009 July 02]. Available from: http://www.nhlbi.nih.gov/guidelines/obesity/ About BMI for Children and Teens [Internet]. Atlanta (GA): Division of Nutrition, Physical Activity and Obesity, Centers for Disease Control and Prevention; 2009 Jan 27 [cited 2009 Jul 28]. Available from: http://www.cdc.gov/healthyweight/assessing/bmi/childrens_BMI/about_childrens_BMI.html WHO Child Growth Standards: Length/height-for-age, weight-for-age, weight-for-length, weight-for-height and body mass index-for-age: Methods and development. [Internet] Geneva, Switzerland: WHO Multicentre Growth Reference Study Group, World Health Organization; 2006 [cited 2009 July 02]. Chapter 6, BMI-for-age standards. Available from: http://www.who.int/childgrowth/standards/Chap_6.pdf . Obesity: Preventing and Managing the Global Epidemic: Report of a WHO Consultation [Internet]. Geneva, Switzerland: World Health Organisation; 2000 [cited 2009 Jul 28]. Available from: http://www.who.int/nutrition/publications/obesity/WHO_TRS_894/en/index.html Tzamaloukas AH, Patron A, Malhotra D. Body Mass Index in Amputees. Journal of Parenteral and Enteral Nutrition [Internet]. 1994 [cited 2009 Jul 28]; 18 (4): 355. Available from: http://pen.sagepub.com/cgi/content/abstract/18/4/355	

	amputees and similar injuries or disabilities if using adjusted height and/or adjusted weight, as appropriate, rather than actual height and weight. See openEHR-EHR-OBSERVATION.height-adjusted and openEHR-EHR-OBSERVATION.body_weight-adjusted. See WHO reference re adjusting height/length for Body Mass Index in paediatrics. In children and teens, BMI needs to be assessed using age-related reference charts.				
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Data

Structure: Tree

Concept	Description	Constraints	Values
Q Body mass index	Index describing ratio of weight to height.	<i>Quantity</i> 1..1	Property = Mass per Area Units = kg/m2; >=0; <1000; Units = [lb_av]/[in_i]2; >=0; <1000;
T Clinical interpretation	Single word, phrase or brief description that represents the clinical meaning and significance of the body mass index.	<i>Text</i> 0..1	Text;
T Comment	Additional narrative about the calculation, not captured in other fields.	<i>Text</i> 0..1	Text;

State

Structure: Tree




Concept	Description	Constraints	Values
T Confounding factors	Narrative description of any issues or factors that may impact on the calculation.	<i>Text</i> 0..1	Text;

Event Series

Events	Description	Constraints
Any event	Default, unspecified point in time or interval event which may be explicitly defined in a template or at run-time.	Event

Protocol

Structure: Tree, Ordered

Concept	Description	Constraints	Values
 Method	The method of entering the body mass index.	<i>Text</i> 0..1	Internal; 'Automatic entry', 'Direct entry'
 Formula	Formula used to derive the body mass index.	<i>Text</i> 0..1	Text;
	Slot Extension [Cluster]	Include : Cluster	Exclude : Cluster