**Anthropometric Indices to Reveal Nutritional Status (Cover Page [Insert – Cover Page])**

**[Insert – Page Break] Contents** **(Arial Black, 20)**

**[Insert – Page Break]** **Introduction [Home – Styles – Heading 1]**

The main anthropometric indices able to reveal nutritional status of neonates are:

* Ponderal index
* Body mass index
* Head circumference/Abdominal circumference
* Mid-arm circumference/Head circumference
* Weight/Length (W/L)

**[Insert – Page Break] Ponderal index [Home – Styles – Heading 1]**

It was first proposed 1921 as "Corpulence Index" by Rohrer [Rohrer F. Der Index der Körperfülle als Maß des Ernährungszustandes. Münchner Med Wschr 1921;68:580-582.].

* + Abbreviation: PI
	+ Provide the relationship between mass and height.
	+ Is similar to the body mass index.
	+ Formulas: (Insert formulas with Insert Equation and delete the provided formulas!)

|  |  |
| --- | --- |
|  | normal values for 12 month old infant: [10.3 – 13.9] |
|  | normal values: [2.175 - 2.4] |
|  | normal values: [12.49 - 13.92] |

**[Insert – Page Break] Body mass index [Home – Styles – Heading 1]**

It is also knows as *Quetelet index.* It was invented between 1830 and 1850 by the Belgian polymath Adolphe Quetelet [Eknoyan Garabed. Adolphe Quetelet (1796–1874)-the average man and indices of obesity. Nephrol. Dial. Transplant. 2008;23(1):47-51.].

* + Abbreviation: BMI
	+ Is a heuristic proxy for human body fat based on an individual's weight and height.
	+ Formulas: (Create a new table based on the model below and use Insert Equation to include the corresponding equations! Delete the provided table (image table)!)



* + The International Classification of adult underweight, overweight and obesity according to BMI: (Create a new table based on the model below and use Insert Equation to include the corresponding equations! Delete the old table (image table)!)



**[Insert – Page Break] Head circumference/Abdominal circumference [Home – Styles – Heading 1]**

* + Abbreviation: HC/AC ratio
	+ The HC/AC ratio is a means of distinguishing different patterns of growth retardation with a high ratio implying malnutrition of the fetus [Colley NV, Tremble JM, Henson GL, Cole TJ. Head circumference/abdominal circumference ratio, ponderal index and fetal malnutrition. Should head circumference/abdominal circumference ratio be abandoned? Br J Obstet Gynaecol 1991;98(6):524-7.].

 **[Insert – Page Break] Mid-arm circumference/Head circumference** **[Home – Styles – Heading 1]**

* + Abbreviation: MAC/OFC
	+ Mid-arm circumference is a very good indicator of low and insufficient birth weigh [Figueira BB, Segre CA. Mid-arm circumference and mid-arm/head circumference ratio in term newborns. Sao Paulo Med J 2004;122(2):53-9.].

 **[Insert – Page Break] Weight/Length** **[Home – Styles – Heading 1]**

* Abbreviation: W/L
* Reflects the intrauterine nutritional state [Fok TF, Hon KL, Ng PC, Wong E, So HK, Lau J, Chow CB, Lee WH; Hong Kong Neonatal Measurements Working Group. Use of anthropometric indices to reveal nutritional status: normative data from 10,226 Chinese neonates. Neonatology. 2009;95(1):23-32.].
* Braga and Lima concluded that weight/length ratio is the best alternative to assess the nutritional status of infants at birth [Braga TD, Lima Mde C. [Weight/length ratio: is it a good index to assess the nutritional status of full-term newborns?]. J Pediatr (Rio J) 2002;78(3):219-24.].

**[Insert – Page Break] References** **[Home – Styles – Heading 1]**