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LETTER TO THE EDITOR

Weight Loss Reporting

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To the Editor:
Since your excellent 2003 *Obesity Surgery* paper [1], we have been using that formula to report weight loss results. The main advantage with its use is to simplify the international measurements and overcome the Metropolitan Insurance Company tables that do not currently apply to all types of individuals.

With the body mass index (BMI)=kg/m^2, the percent excess BMI loss (%EBMIL) is: %EBMIL=100 − [(follow-up BMI–25 / beginning BMI–25)]×100.

However, in the Editorial [2] and Reply [3] in *Obesity Surgery*, it is stated that: %EBMIL or %EBL=(pre-op BMI − current BMI / pre-op BMI–25)×100, but these are not the same formulas.

The critical upper limit of "ideal weight" was indicated by a mathematical ideal number of 25 for all individuals. The main drawback came to my mind when reporting on patients with far-apart initial BMI. I will give two examples:

1. A 64-year-old lady had a bariatric operation with an initial BMI of 65. Her BMI dropped to 38 in 4 years, a significant drop of 27 units, and her %EBMIL was 67.5%.
2. A 45-year-old lady had a bariatric operation with an initial BMI of 36. Her BMI dropped 17 units to BMI 19, but her %EBMIL is 180%.

This is an unusual system to report weight loss, because the patient with the highest BMI drop of 27 has a fair but low %EBMIL compared with the second case with the lowest BMI drop of 17 who has an extremely high %EBMIL of 180%.

If the only variable besides the pre-operative BMI is the 25 assigned to indicate an "ideal post-op BMI", should there be a sliding scale of compensation for the initial BMI such as:

Ideal post-op BMI of 20 for patients with initial BMI 35–40
Ideal post-op BMI of 21 for patients with initial BMI 40–45
Ideal post-op BMI of 22 for patients with initial BMI 45–50
Ideal post-op BMI of 23 for patients with initial BMI 50–55
Ideal post-op BMI of 24 for patients with initial BMI 55–60
Ideal post-op BMI of 25 for patients with initial BMI over 60

I am sure that reporting weight loss will be using the BMI, but we have to make some corrections so that the %EBMIL will have the same meaning for the light persons and the heavy ones.

Aniceto Baltasar, MD

Reply:
Both of the above %EBMIL formulas give the same results. However, the %EBMIL formula is only applicable to *excess* BMI (i.e., above 25).

Also, the BMI of 19 may be an excessive weight loss, and this patient must be observed that she is not developing

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anorexia nervosa [4]. I do not know if her operation was one that can be reversed, whether she can follow a nutritious diet, etc. However, her BMI of 19, which includes the weight of redundant skin (which is non-functioning), actually gives her a true BMI below this level.

With respect to Asians, the number 22 or 23 should be used in place of 25 in the %EBMIL formula, because that population shows co-morbidities of obesity starting at a lower BMI [5].

Mervyn Deitel, MD

Reply:

Dr. Baltasar's proposal would add multiple layers of complexity to a simple concept and calculation. Furthermore, as Editorials in *Obesity Surgery* have made clear, the 25 BMI cut-off does not apply to all ethnic groups [1, 2].

The critical concept that needs to be understood is that the value of 25 is accepted as the *upper limit of a normal* BMI [6]. Any value above a BMI of 25 is *excess* BMI. Therefore, an individual whose weight has gone below a BMI of 25 has lost all of his or her excess weight and then some. Aniceto gave the example of someone who started at a BMI of 36 and at the time of reporting has a BMI of 19. She has indeed lost 180% of her preoperative *excess* weight.

What troubles me is that none of the current mechanisms of reporting weight loss (including %EBMIL) addresses the fat/muscle bulk conundrum. An athlete in training may have a BMI of 28, but only 1% body fat. That individual is not "overweight". Deitel et al. [2] have addressed the problems with factoring in fat when reporting weight loss. I decided to fight one battle at a time. Although somewhat tardy, I think that %EBMIL will soon become the accepted standard for reporting weight loss in the overweight and obese, as recommended by this journal. The fat/muscle ratio will have to wait its turn.

Robert J. Greenstein, MD

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