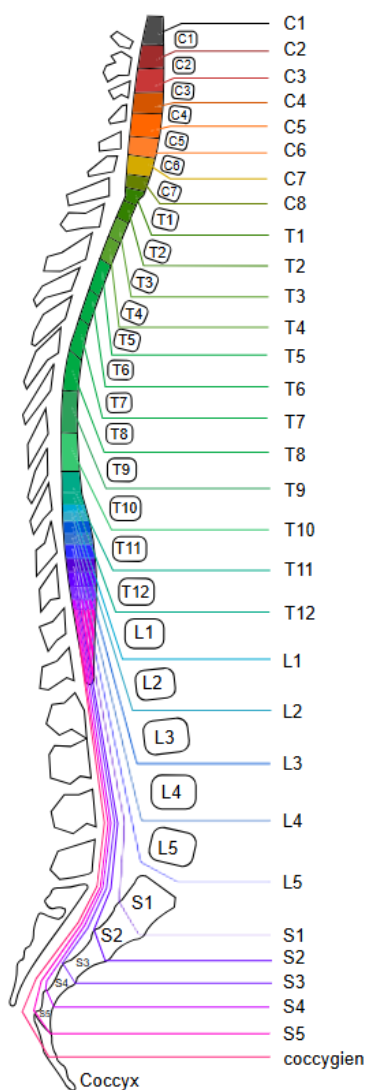




Injury and food intake autonomy



C2 through C4: Dependent for feeding. These persons have no movement of the upper extremities, although there is some control of the neck muscles. The C2 client requires ventilatory support, while the C4 client usually does not.

C5: Independent for feeding after the setup of adaptative equipment. The C5 clients have use of their biceps, can feed themselves with the aid of special equipment and perform simple activities of daily living such as grooming.

C6: Independent for feeding with or without adaptative equipment. The clients have use of their wrists. They can be independent in grooming and bathing, driving and preparing a simple meal.

C7: Independent for feeding. In addition to the above activities, C7 clients can straighten their arms. Some clients are capable of total independence and can live alone with some adaptations in their homes.

T1 through T6: Independent for feeding. The T1 client has all cervical segments intact and has normal hands. He or she should be capable of independent living in a wheelchair accessible environment. A client with a T6 injury has much better breathing due to control of chest muscles.

T12: The T12 client has complete trunk control, with good abdominal muscles. Sitting balance is good. Ambulation may be possible with long leg braces, though very difficult.

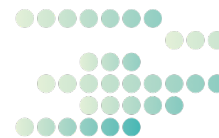
L4: Independent for feeding. The L4 client has use of the hip flexors and quadriceps. He or she can extend his or her knees and raise his or her feet. There is still some paralysis in the back of the legs, but ambulation is possible with the assistance of short leg braces.

Spinal reflex activity regulating autonomic processes such as bladder and bowel function is usually present in persons with lesions at T12 or above but is usually absent at L1 or below.

Figure 1: Spinal cord dermatomal map.

Reproduced from: Dr Pauline Neveu: Myelomeres et dermatomes [image on the Internet]. Wikimedia Commons; 2024 Sep 9 [cited 2026 Jan 28]. Available from:

https://commons.wikimedia.org/w/index.php?title=File:DrPaulineNeveu_03_Myelomeres_et_dermatomes.svg&oldid=921927408. Licensed under CC BY 4.0.



**Algorithm for nutritional assessment and intervention (for professionals)
At the hospital (acute spinal cord injury)**

abcd assessment should be repeated once a week

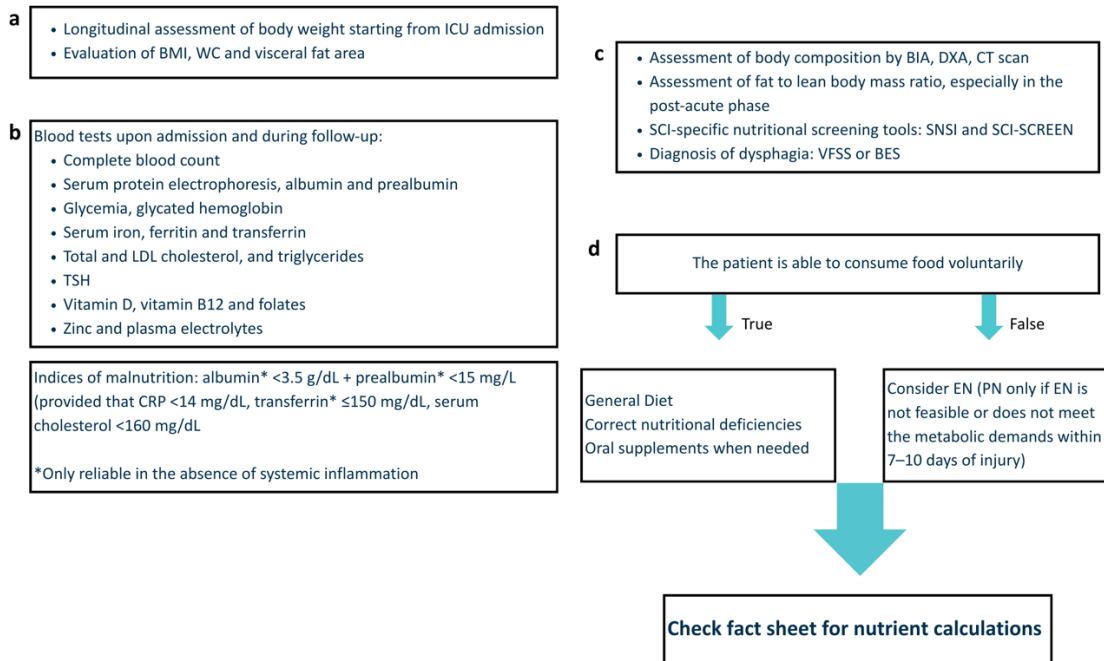
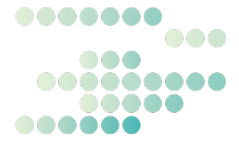
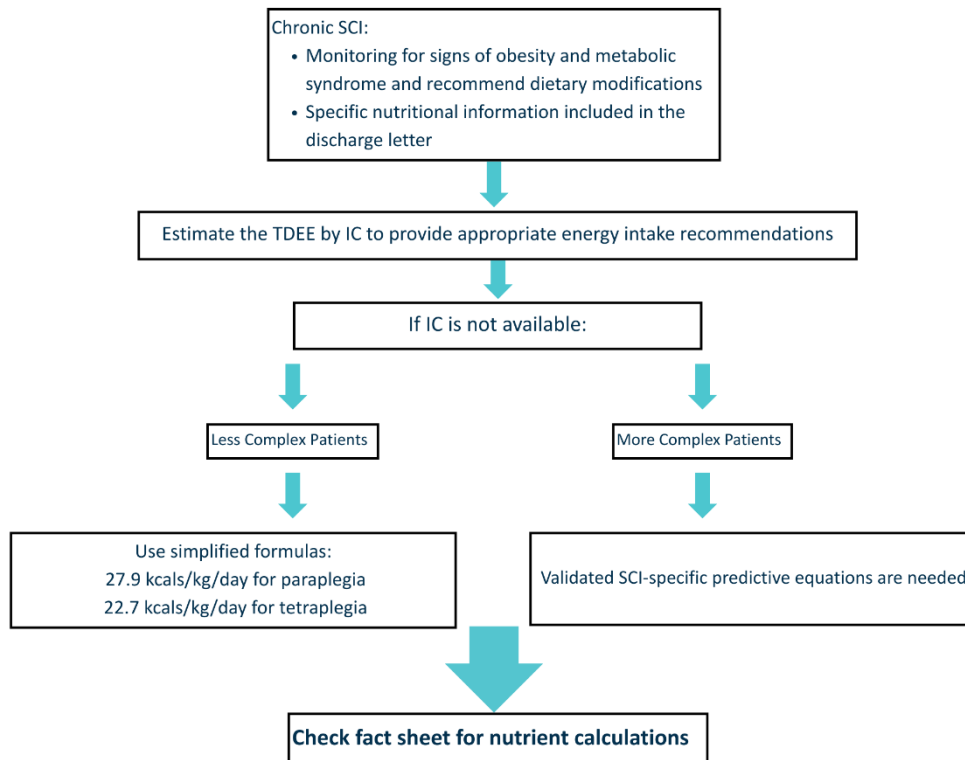


Figure 2: Algorithm for nutritional assessment and intervention (for professionals). At the hospital (acute spinal cord injury)

Adapted from: Areni A, Capeci W, Cassinis A, De Palma L, Del Popolo G, Fergnani F, Pelizzari L. What we do and what we should do against malnutrition in spinal cord injury: a position paper from Italian Spinal Cord Injury Network rehabilitation centers. J Clin Med Res. 2024;16(4):138-154. doi:10.14740/jocmr5015. Licensed under CC BY 4.0.



**Algorithm for nutritional assessment and intervention (for professionals)
At home (chronic spinal cord injury)**



TDEE= total daily energy expenditure
IC= Indirect calorimetry

Figure 3: Algorithm for nutritional assessment and intervention (for professionals). At home (chronic spinal cord injury)

Adapted from: Areni A, Capeci W, Cassinis A, De Palma L, Del Popolo G, Fergnani F, Pelizzari L. What we do and what we should do against malnutrition in spinal cord injury: a position paper from Italian Spinal Cord Injury Network rehabilitation centers. J Clin Med Res. 2024;16(4):138-154. doi:10.14740/jocmr5015. Licensed under CC BY 4.0.

References:

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- Gines DJ. Nutrition management in rehabilitation. 1st ed. New York: Aspen Publishers; 1990
- Pauline Neveu: Myelomeres et dermatomes [image on the Internet]. Wikimedia Commons; 2024 Sep 9 [cited 2026 Jan 28]. Available from: https://commons.wikimedia.org/w/index.php?title=File:DrPaulineNeveu_03_Myelomeres_et_dermatomes.svg&oldid=921927408.