**Clinical Nutrition and dietetics – 4th semester**

**Paper No.: CND 404**

**Name of the paper: Dietary management of diseases - Part IV**

**Topic: Trauma**

 **Lecture No.: 6**

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**Trauma**

**What is trauma:** Trauma is the response to a deeply distressing or disturbing event that overwhelms an individual’s ability to cope, causes feeling of helplessness, diminishes their sense of self and their ability to feel the full range of emotions and experiences. In medical term trauma refers to a severe and often life threatening injury that suddenly develop when the entire body or a part of it has been hit by a blunt object or due to sudden impact.

**Types of trauma:**

1. **Bullying:** It is a deliberate and unsolicited action that occurs with the intent of inflicting social, emotional, physical and/or psychological harm to some one who often is prescribed as being less powerful.
2. **Community violence:** It is interpersonal violence committed in public areas by individuals who are not intimately related to the victim.
3. **Complex trauma:** Exposure of children to multiple traumatic events.
4. **Disasters:** Hurricanes, earthquake, tornadoes, tsunami, droughts, windstorm, extreme heat etc.
5. **Early childhood trauma:** Traumatic experience that occurs to children aged 0-6 years.
6. **Intimate partner violence:** It is domestic violence, when an individual purposely causes harm or threatens the risk of harm to any past or current partner or spouse.
7. **Medical trauma:** Stress refers to a set of physiological and psychological responses. This is mainly related with injury.
8. **Refuge trauma:** Many refugees have experienced trauma related to war or persecution that may affect this mental and physical health long after that events have occurred.
9. **Traumatic grief:** Death of nearest one that memorises recall frequently.

**Nutritional care of trauma:** Major 3 responses are noted in trauma.

1. **Cardiovascular response:** Haemorrhage**,** tissue damage, pain and anxiety.
2. **Inflammatory response:** Production of cytokines, swelling.
3. **Metabolic response:** Hypermetabolism, Insulin resistance, hyperglycaemia, increased protein breakdown, wound healing.

A well planned system of interdisciplinary nutrition care is needed to optimally assist recovery of critically ill trauma patients.

Ireton-jones equation is used for energy expenditure in critical illness/ trauma.

1. **Spontaneously breathing patients:**

Kcal/day = 629 – 11 (age) + 25 (W) – 609 (O)

1. **Ventilated patients:**

Kcal/day = 1784 – 11 (A) + 5 (W) + 244 (5) + 239 (T) + 804 (B).

Where A = age in year, W = weight in kg, S = sex, 1 for male and 0 for female, O = obesity, T = trauma, B = burn if present then 1 and if absent then 0.

**Nutrients:** **As per burn in previous study material.**