

جامعة الشارقة  
UNIVERSITY OF SHARJAH

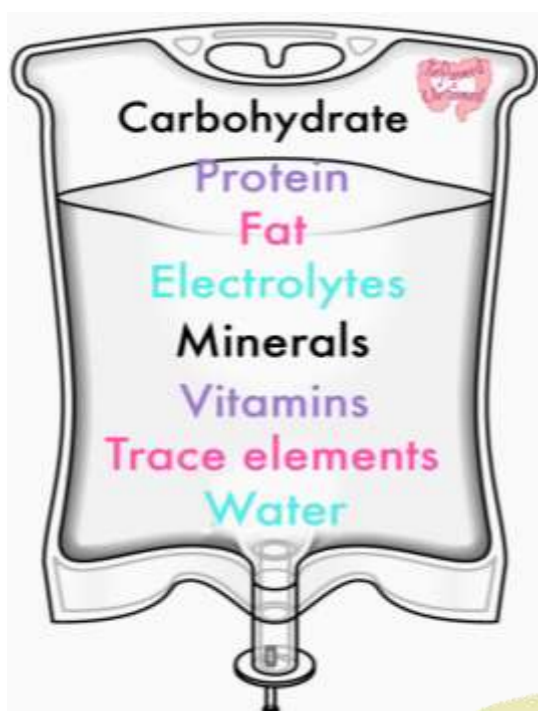
Pharmacy united in action for a healthier world  
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# TOTAL PARENTERAL NUTRITION

Is a method of feeding that bypasses the gastrointestinal tract. A special formula given through a vein provides most of the nutrients the body needs. The method is used when someone can't or shouldn't receive feedings or fluids by mouth.

## WHAT'S IN IT ?



## Indications:

- Gastrointestinal fistula
- Bowel obstruction
- Prolonged bowel rest
- Severe malnutrition, significant weight loss
- hypoproteinaemia when enteral therapy is not possible

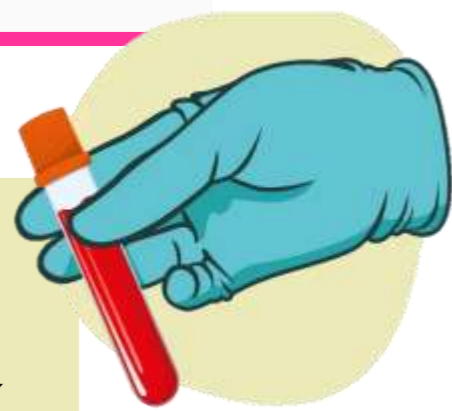


## Compounding:

Working on TPN preparations within a laminar airflow hood (LAH) requires a unique set of challenges to prevent contamination. This involves the 6-inch zone, Direct Compounding Area, wearing PPE during compounding process, Hand techniques, Placement of supplies including syringes, vials, and needles.

## Regular blood work

Lab results help determine the content of your TPN solution.



2→1



Types of PN admixtures



3→1

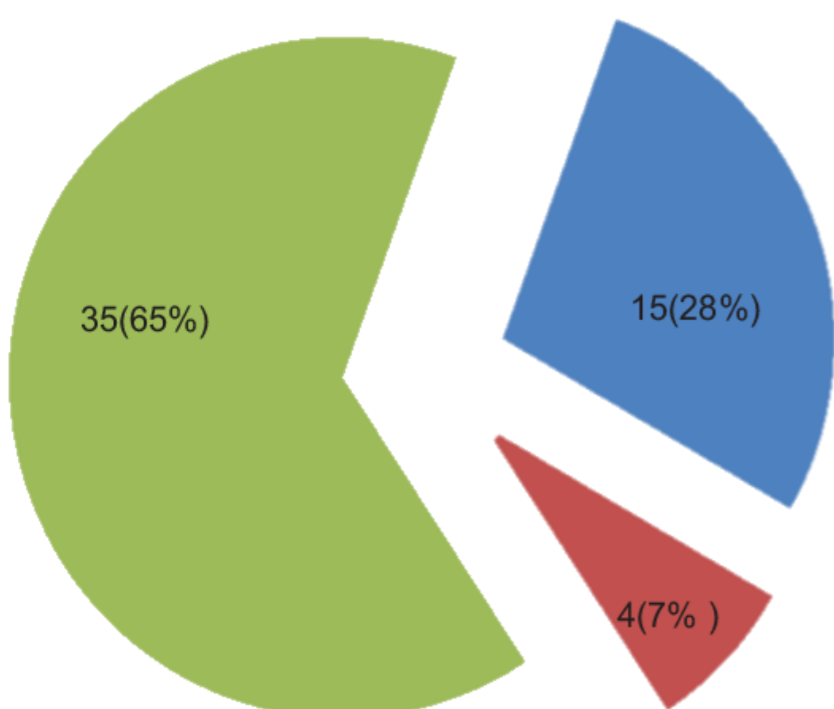
## Toxicity:

- The toxicity of TPN is related to the individual toxicity of its components.
- Increased caloric amounts due to TPN glucose and lipid excess can lead to hepatic toxicity.
- A glucose infusion rate greater than 5 mg/Kg/min can result in a fatty liver.
- Long-term usage of TPN, ranging from weeks to months, can be associated with the rare complication of manganese toxicity.



## Most common route of administration of PN:

■ Central ■ Central & Peripheral ■ Peripheral



## WHO MAKES IT ?

A pharmacist with special training to make TPN makes the solution according to your results, weight, health condition, and other factors.



## Enhancing healthcare team outcome:

- The clinician determines the treatment and the form of needed nutrition.
- The pharmacist provides sterile parenteral nutrition.
- The dietician assesses the patient's nutritional status, calculates the daily requirement, and designs the feeding regimen.
- The nutrition nurse specialist supervises catheters and tube care.