



THE UNIVERSITY OF TOLEDO  
MEDICAL CENTER

DOCTOR'S ORDERS  
Adult Parenteral Nutrition  
Daily Order Form

ADDRESSOGRAPH

FOR PHARMACY USE ONLY

Bag# \_\_\_\_\_  
Height \_\_\_\_\_ cm. Ideal Body Weight \_\_\_\_\_ kg.  
Admission Weight \_\_\_\_\_ kg. BMI \_\_\_\_\_

All orders need to be **completed daily and faxed** to the Pharmacy Department  
**by 1800** to be supplied by 2200

**Central Line/PICC** or  **Peripheral Line**

**Volume** (will be maximally concentrated at recommended safe volume, unless otherwise specified)  
TPN/PPN volume \_\_\_\_\_ ml/24 hours

**Non-Protein Calories**

(based on ideal body weight when BMI ≥ 25, or based on admission weight when BMI < 25)

<input type="checkbox"/> 22 kcal/kg	<input type="checkbox"/> 30 kcal/kg
<input type="checkbox"/> 25 kcal/kg	<input type="checkbox"/> Other
<input type="checkbox"/> 28 kcal/kg	

**Protein**

(based on ideal body weight when BMI ≥ 25, or based on admission weight when BMI < 25)

<input type="checkbox"/> 1 gm/kg	<input type="checkbox"/> 2 gm/kg
<input type="checkbox"/> 1.2 gm/kg	<input type="checkbox"/> Other:
<input type="checkbox"/> 1.5 gm/kg	

**Propofol**  Yes  No (Propofol = 1.1 kcal/ml. Adjust Carbohydrate/Lipid Ratio *below* AND decrease Non-Protein calories *above*.)

**Carbohydrate/Lipid Ratio of Non-Protein Calories**

CENTRAL LINE (TPN)	PERIPHERAL LINE (PPN)
<input type="checkbox"/> 70% / 30%	<input type="checkbox"/> 40% / 60%
<input type="checkbox"/> 60% / 40%	
<input type="checkbox"/> 50% / 50%	
<input type="checkbox"/> other	

**STANDARD ADDITIVE MIX**

Sodium Chloride 70mEq /day  
Sodium Acetate\* 0mEq  
Potassium Chloride 40mEq /day  
Potassium Acetate\* 0mEq  
Magnesium Sulfate 10mEq /day  
Calcium Gluconate 10mEq /day  
Sodium Phosphate 10mMol /day  
Potassium Phosphate 20mMol /day  
MVI daily  
Trace Minerals daily

**CUSTOM MIX (See Table II on back of form)**

Sodium Chloride \_\_\_\_\_ mEq/day  
Sodium Acetate\* \_\_\_\_\_ mEq/day  
Potassium Chloride \_\_\_\_\_ mEq/day  
Potassium Acetate\* \_\_\_\_\_ mEq/day  
Magnesium Sulfate \_\_\_\_\_ mEq/day  
Calcium Gluconate \_\_\_\_\_ mEq/day  
Sodium Phosphate \_\_\_\_\_ mMol /day  
Potassium Phosphate \_\_\_\_\_ mMol /day  
MVI daily  
Trace Minerals daily

\*Mixed Amino Acid formula contains acetate.

**OTHER ADDITIVES (For insulin recommendations see Table III on back of form)**

Famotidine \_\_\_\_\_ mg/day      Ascorbic Acid \_\_\_\_\_ mg/day      Zinc \_\_\_\_\_ mg/day  
Humulin R \_\_\_\_\_ units/day      Vitamin K \_\_\_\_\_ mg/day      Other \_\_\_\_\_

**MONITORING**

- TPN/PPN panel** (order on first TPN/PPN and document labs on Cardex). Discontinue when TPN/PPN is discontinued.
  - Day 1: Comprehensive metabolic panel (Chem 14)
  - Day 1, Day 6, then every 7 days: Triglycerides, Prealbumin
  - Day 1 and every Monday and Thursday: Ionized calcium, Phosphorus, Magnesium
  - Daily: Metabolic panel (Chem 8)
  - Day 6, then every 7 days: Hepatic function panel
- Dietitian consult
- Daily weight, intakes/outputs
- Finger stick blood glucose every 6 hours
- Sliding scale insulin (per physician order)
- First TPN/PPN order, start at ½ of the final rate for the first 8 hours; advance rate as tolerated

Signature \_\_\_\_\_ Page # \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
Printed signature \_\_\_\_\_ Noted by RN \_\_\_\_\_ (signature)





**DOCTOR'S ORDERS**  
**Adult Parenteral Nutrition**  
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ADDRESSOGRAPH

Male height		Ideal weight		Female height		Ideal weight
5'	(152cm)	48.2kg		4'10"	(147cm)	40.9kg
5'1"	(155cm)	50.9kg		4'11"	(150cm)	43.2kg
5'2"	(158cm)	53.6kg		5'	(152cm)	45.5kg
5'3"	(160cm)	56.3kg		5'1"	(155cm)	47.8kg
5'4"	(163cm)	59kg		5'2"	(158cm)	50.1kg
5'5"	(165cm)	61.7kg		5'3"	(160cm)	52.4kg
5'6"	(168cm)	64.4kg		5'4"	(163cm)	54.7kg
5'7"	(170cm)	67.1kg		5'5"	(165cm)	57kg
5'8"	(173cm)	69.8kg		5'6"	(168cm)	59.3kg
5'9"	(175cm)	72.5kg		5'7"	(170cm)	61.6kg
5'10"	(178cm)	75.2kg		5'8"	(173cm)	63.9kg
5'11"	(180cm)	77.9kg		5'9"	(175cm)	66.2kg
6'	(183cm)	80.6kg		5'10"	(178cm)	68.5kg
6'1"	(185cm)	83.3kg		5'11"	(180cm)	70.8kg
6'2"	(188cm)	86kg		6'	(183cm)	73.1kg
6'3"	(191cm)	88.7kg		6'1"	(185cm)	75.4kg
6'4"	(193cm)	91.4kg		6'2"	(188cm)	77.7kg

Sodium	70-140mEq/day
Potassium	70-140mEq/day
Magnesium	10mEq/day
Calcium	10mEq/day
Acetate**	As needed for acid-base balance
Chloride	As needed for acid-base balance
Phosphorus	30mMol/day
*Derived from ASPEN Safe Practices, 1998	
**Amino Acid formula contains Acetate	
***Derived from Nutrition Standards of Practices & Evidence Based Practice Guidelines (IBW)	
Men = 48.2kg for 5ft + 2.7kg for each inch > 5ft	
Women = 45.5kg for 5ft + 2.3kg for each inch > 5ft	

**Table III Estimated insulin requirements for carbohydrate coverage**

<p>The ratio shown in this formula is 0.1 unit of insulin/gram of dextrose.</p> <ol style="list-style-type: none"> <li>(Ideal wt./admission wt.) x (non-protein calories/kg) = Total non-protein calories <i>Example: 70kg x 25 non-protein calories/kg = 1750 total non-protein calories</i></li> <li>(Total non-protein calories) x (% of carbohydrate from non-protein calories) = Non-protein calories from Carbohydrates <i>Example: 1750 total non-protein calories x 30% = 525 non-protein calories from carbohydrates</i></li> <li>(Non-protein calories from carbohydrates) ÷ (3.4 calories/gram of carbohydrate) = grams of dextrose/carbohydrate <i>Example: 525 ÷ 3.4 = 154g of dextrose</i></li> <li>(Grams of dextrose) x (0.1 units of insulin) = units of insulin needed to cover grams of dextrose/carbohydrate <i>Example: 154g dextrose x 0.1 units = 15 units of insulin</i></li> </ol> <ul style="list-style-type: none"> <li>▶ This Formula is only a suggested starting point for the addition of insulin to the TPN order.</li> <li>▶ The dosages should be adjusted based on the patient's blood sugars monitored every 6 hours until glucose levels are &lt;200mg/dl.</li> </ul>
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**Table IV Trace Minerals include:**

Zinc	1 mg
Copper	0.4 mg
Manganese	0.1 mg
Chromium	4 mcg
Selenium	20 mcg

**Monitoring:**

According to the Pharmacy and Therapeutics Committee ruling from November 2005, all TPN/PPN laboratory data within the TPN/PPN panel will be ordered for every TPN/PPN regardless of denotations made by the ordering physician on the Adult Parenteral Nutrition Daily Order Form. Monitoring orders are adapted from The Science and Practice of Nutrition Support. A Case-Based Core Curriculum, 2001, American Society for Parenteral and Enteral Nutrition.

