Oral Supplements Per Serving

Product Name	BOOST PLUS®	BOOST® VHC	BOOST GLUCOSE CONTROL®	BOOST BREEZE®	NOVASOURCE® RENAL	DIABETISHIELD®	Suplena® with CARBSTEADY®	PEPTAMEN® WITH PREBIO¹™	BOOST® NUTRITIONAL PUDDING	BENEPROTEIN®	OPTISOURCE® VERY HIGH PROTEIN DRINK	MCT OIL®	GLUTASOLVE®	Juven®
Type of Diet	**Standard**	**Very High Calorie**	**Low CHO High Protein**	**Clear Liquid**	**Renal**	**Clear Liquid Diabetes / Glucose Management**	**Renal Pre-Dialysis**	**Peptide-Based Elemental**	**Pudding**	**Protein**	**Bariatric High Protein**	**Fat Supplement**	**L-Glutamine**	**L-Arginine and L-Glutamine**
Calories (kcal)	360	530	250	250	475	150	425	250	240	25	100	115	90	70
Serving Size	237 mL	237 mL	237 mL	237 mL	237 mL	237 mL	237 mL	250 mL	148 mL	1 Scoop (7 g)	118 mL (4 oz.)	15 mL (1 Tbsp.)	1 Packet (22.5 g)	Flavored 24 g Unflavored 19.3 g
Flavors	Vanilla, Chocolate, Strawberry	Vanilla	Vanilla, Chocolate, Strawberry	Orange, Wild Berry	Vanilla	Mixed Berry, Orange Twist	Vanilla	Vanilla	Vanilla, Chocolate	Unflavored	Caramel, Strawberry	Unflavored	Unflavored	Orange, Unflavored
Protein (g) / (% of kcal)	14 g / 15%	22 g / 16%	14 g / 23%	9 g / 14%	21.6 g / 18%	7 g / 19%	10.6 g / 10%	10 g / 16%	7 g / 11%	6 g / 100%	12 g / 49%	0 g / 0%	15 g / 68% (As Amino Acid)	OJ 14 g / 71%, U: 14 g / 85%
Protein Source	Milk Protein Concentrate**, Milk, Soy Protein Isolate	Milk**, Isolated Soy Protein	Milk**, L-Arginine	Whey Protein Isolate**	Milk**, Soy Protein Isolate	Whey Protein Isolate**, L-Arginine	Milk Protein Isolate**, Milk	Enzymatically Hydrolyzed Whey Protein**	Milk Protein Concentrate**, Milk	Whey Protein Isolate**	Milk Protein Isolate**	N/A	L-Glutamine (15 g)	L-Arginine (7 g), L-Glutamine (7 g)
CHO (g) / (% of kcal)	45 g / 50%	46 g / 34%	23 g / 33%	54 g / 86%	43.5 g / 37%	30 g / 81%	46.4 g / 42%	32 g / 49%	33 g / 55%	0 g / 0%	6 g / 24%	0 g / 0%	7 g / 32%	OJ: 8 g / 29%, U: 4 g / 15%
CHO Source	Corn Syrup, Sugar	Corn Syrup, Sugar	Tapioca Dextrin, Fructose, Corn Syrup Solids	Sugar, Corn Syrup, Maltodextrin	Corn Syrup, Sugar, Maltodextrin	Corn Syrup	Corn Maltodextrin, Isomaltulose, Sugar, Glycerine	Maltodextrin, Cornstarch, Sucrose, Sucralose	Sugar, Maltodextrin, Modified Cornstarch	N/A	Maltodextrin	N/A	Maltodextrin	Orange Juice Powder, Sugar
Fat (g) / (% of kcal)	14 g / 35%	30 g / 50%	12 g / 44%	0 g / 0%	23.8 g / 45%	0 g / 0%	22.7 g / 48%	10 g / 35%	9 g / 34%	0 g / 0%	3 g / 27%	14 g / 100%	0 g / 0%	0 g / 0%
Fat Source	Canola Oil, High Oleic Sunflower Oil, Corn Oil	Canola Oil, Corn Oil	Canola Oil	N/A	Canola Oil	N/A	High Oleic Safflower Oil, Canola Oil	MCT Oil, Soybean Oil	Canola Oil, High Oleic Sunflower Oil, Corn Oil	N/A	Canola Oil, MCT Oil	Modified Coconut and/or Palm Kernel Oil	N/A	N/A
Water (mL)	185	160	198	197	170	211	175	210	90	N/A	101	N/A	N/A	N/A
Osmolality (mOsm/kg)	670	N/A	400	750	800	380	780	300	N/A	44	150	N/A	310 when mixed with 120 mL water	Orange 451, Unflavored 405
Fiber (g) S / I	3 3 / 0	0	3 3 / 0	0	0	0	3 3 / 0	1 1 / 0	0	0	0	0	0	0
Fiber Source	FOS, Inulin, Gum Acacia	N/A	FOS, NUTRISOURCE® FIBER, Soy Fiber	N/A	N/A	N/A	FOS	PREBIO1™, (Inulin, FOS)	N/A	N/A	N/A	N/A	N/A	N/A
Na (mg)	200	280	270	80	225	35	190	140	140	15	70	0	0	0
K (mg)	360	420	260	0	225	0	270	375	250	30	70	0	0	0
Ca (mg)	350	250	250	0	200	0	250	200	250	20	150	0	0	200
P (mg)	300	250	200	150	195	500	170	175	200	0	150	0	0	0
Mg (mg)	100	80	80	0	47	0	50	75	60	0	0	0	0	0
Meet or exceed 100% RDI/DRI (mL)	1185	N/A	1180	N/A	1000*	N/A	944	1500	N/A	N/A	N/A	N/A	N/A	N/A

* Except for vitamin A, chloride, phosphorus, and magnesium. **These formulas contain milk protein

Malnutrition Diagnosis: Minimum of two characteristics is required.

	Acute Illness or Injury		Chronic Illness		Social/Environmental	
Examples	ARDS, Trauma, Burns, Sepsis		Organ Failure, Pancreatic Ca, RA		Pure Chronic Starvation, Anorexia	
Malnutrition	**Moderate**	**Severe**	**Moderate**	**Severe**	**Moderate**	**Severe**
Energy Intake	<75% of est. needs for >7 d	≤50% of est. needs for ≥5 d	<75% of est. needs for ≥1 m	≤75% of est. needs for ≥1 m	<75% of est. needs for ≥3 m	≤50% of est. needs for ≥1 m
Wt Loss	1-2% over 1 wk	>2% over 1 wk	5% over 1 m	>5% over 1 m	5% over 1 m	>5% over 1 m
	5% over 1 m	>5% over 1 m	7.5% over 3 m	>7.5% over 3 m	7.5% over 3 m	>7.5% over 3m
	7.5% over 3 m	>7.5% over 3 m	10% over 6 m	>10% over 6 m	10% over 6 m	>10% over 6 m
			20% over 1 yr	>20% over 1 yr	20% over 1 yr	>20% over 1 yr
Body Fat Loss	Mild	Moderate	Mild	Severe	Mild	Severe
Muscle Loss	Mild	Moderate	Mild	Severe	Mild	Severe
Fluid Accumulation	Mild	Moderate	Mild	Severe	Mild	Severe
Grip Strength	n/a	Reduced	n/a	Reduced	n/a	Reduced

TPN Order

Consult Nutrition Services or page 22799 before starting TPN/PPN.

To start a new PN, check the following options on the Adult Parenteral Nutrition Order form:

1. Rate & Volume: ☑ 42mL/hr (1000mL)

2. Day 1 recommendation box: ☑ Central (150g dex; 50g Amino acids) **OR** ☑ Peripheral

3. ☑ Standard (MVI 10mL & MTE-5 5mL)

4. ☑ Baseline Labs: CMP, Phos, Magnesium, Triglycerides, Prealbumin, CRP and CBC

5. ☑ Blood glucose checks every 6 hours with Corrective Dose Insulin

Sign the form and fax it to Pharmacy at 43744 before 3pm daily.

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Memorial Hermann Health System

Adult Enteral Nutrition Formulary

Units	Pager #
Adult Weekend On-Call	22799
Children Weekend On-Call	23673
Trauma/Surgery	
STICU, SIMU	23736
TSICU, 3J, 9EJ	24524
Burn, 6J, 8NJ	17677
Medicine/Neuro	
MICU, MIMU, Signature Suites	24354
Neuro ICU, NIMU, Stroke	22117/23307
3C, 5WC, 4J (Rehab)	22990
4EC, 5J, 4WC, TCF, NEU	23266
Cardiac	
CVICU, CVIMU	23386
CCU, CIMU	22838
5 HVI	23359/29178/24475
9WJ, COU	23482

Tube Feeding Per 1000 mL

	Polymeric									Semi-Elemental				Elemental
Product Name	**ISOSOURCE® HN**	**FIBERSOURCE® HN**	**REPLETE®**	**REPLETE® FIBER**	**ISOSOURCE® 1.5 CAL**	**NUTREN® 2.0**	**DIABETISOURCE® AC**	**NOVASOURCE® RENAL**	**Oxepa®**	**PEPTAMEN AF®**	**PEPTAMEN® 1.5**	**IMPACT® PEPTIDE 1.5**	**PEPTAMEN® BARIATRIC**	**VIVONEX® RTF**
Type of Diet	**Standard Moderate Protein**	**Standard Fiber-Containing Moderate Protein**	**High Protein Isotonic**	**High Protein Fiber-Containing**	**Calorically Dense Fiber-Containing**	**Calorically Dense Low Volume**	**Advanced Control Low CHO Fiber-Containing**	**Renal**	**ARDS**	**Peptide-Based High Protein Fiber-Containing**	**Peptide-Based Calorically Dense**	**Immunonutrition Peptide-Based Calorically Dense Not with Sepsis**	**Peptide-Based Very High Protein BMI > 30 Fiber-Containing**	**Free Amino Acid Low Fat Ready-to-Feed**
Calories per mL	1.2	1.2	1.0	1.0	1.5	2.0	1.2	2.0	1.5	1.2	1.5	1.5	1.0	1.0
Protein (g) / (% of kcal)	54 g / 18%	54 g / 18%	64 g / 25%	64 g / 25%	68 g / 18%	84 g / 16%	60 g / 20%	90.7 g / 18%	62.7 g / 16.7%	76 g / 25%	68 g / 18%	94 g / 25%	92 g / 37%	50 g / 20%
Protein Source	Soy Protein Isolate, Milk**	Soy Protein Isolate, Milk**	Milk**	Soy Protein Isolate, Milk**	Milk**, Soy Protein Isolate	Milk**, Soy Protein Isolate	Soy Protein, L-Arginine	Milk**, Soy Protein Isolate	Milk**	Enzymatically Hydrolyzed Whey Protein**	Enzymatically Hydrolyzed Whey Protein**	Hydrolyzed Casein**, L-Arginine	Enzymatically Hydrolyzed Whey Protein**	Free Amino Acids (29% From BCAA)
CHO (g) / (% of kcal)	156 g / 53%	164 g / 53%	112 g / 45%	124 g / 45%	176 g / 47%	216 g / 43%	100 g / 36%	183 g / 37%	105.3 g / 28.1%	112 g / 35%	188 g / 49%	140 g / 37%	76 g / 29%	176 g / 70%
CHO Source	Corn Syrup, Maltodextrin	Corn Syrup, Maltodextrin	Corn Syrup, Maltodextrin	Corn Syrup, Maltodextrin	Corn Syrup, Maltodextrin	Corn Syrup, Maltodextrin	Corn Syrup, Tapioca Dextrin, Fructose, Fruits and Vegetables, Maltodextrin	Corn Syrup, Sugar, Maltodextrin	Sugar, Corn Maltodextrin	Maltodextrin, Cornstarch	Maltodextrin, Cornstarch	Maltodextrin, Cornstarch	Maltodextrin, Cornstarch	Maltodextrin, Modified Cornstarch
Fat (g) / (% of kcal)	40 g / 29%	40 g / 29%	34 g / 30%	34 g / 30%	59.2 g / 35%	92 g / 41%	58.8 g / 44%	100 g / 45%	93.8 g / 55.2%	54 g / 40%	56 g / 33%	63.6 g / 38%	38 g / 34%	11.6 g / 10%
Fat Source	Canola Oil, MCT Oil	Canola Oil, MCT Oil	Canola Oil, MCT Oil	Canola Oil, MCT Oil	Canola Oil, MCT Oil	Canola Oil, MCT Oil	Canola Oil, Refined Fish Oil	Canola Oil	Canola Oil, MCT Oil, Marine Oil, Borage Oil	MCT Oil, Refined Fish Oil, Soybean Oil	MCT Oil, Soybean Oil	MCT Oil, Refined Fish Oil, Soybean Oil	MCT Oil, Refined Fish Oil, High Linoleic Safflower Oil, Soybean Oil	Soybean Oil, MCT Oil
MCT:LCT	20:80	20:80	20:80	20:80	20:80	50:50	N/A	N/A	25:75	50:50	70:30	50:50	50:50	40:60
Water (mL)	808	808	840	832	764	692	818	717	785	808	768	770	840	848
Osmolality (mOsm/Kg)	510	480	300	330	650	780	450	800	535	390	550	510	345	630
Fiber (g) S / I	0	(15.2) 7.6 / 7.6	0	(15.2) 7.6 / 7.6	(15.2) 7.6 / 7.6	0	(15.2) 12.7 / 2.5	0	0	(6) 6 / 0	0	0	(4) 4 / 0	0
Fiber Source	N/A	IS50™: 50% Pea Fiber, 20% FOS, 10% Inulin, 20% Gum Acacia	N/A	IS50™: 50% Pea Fiber, 20% FOS, 10% Inulin, 20% Gum Acacia	IS50™: 50% Pea Fiber, 20% FOS, 10% Inulin, 20% Gum Acacia	N/A	FOS, NUTRISOURCE® FIBER, Soy Fiber, Vegetables, Fruits	N/A	N/A	FOS, Inulin	N/A	N/A	FOS, Inulin	N/A
Na (mg)	1120	1120	880	880	1300	1500	1060	945	1310	800	1040	1170	680	700
K (mg)	1920	1920	1600	1600	2400	2100	1600	945	1960	1600	1880	1870	1360	1200
Ca (mg)	960	960	800	800	1200	1600	800	840	1060	800	1000	1000	680	668
P (mg)	960	960	800	800	1200	1480	800	819	1060	800	1000	1000	680	668
Mg (mg)	340	340	280	280	420	560	320	197	425	320	400	420	280	268
Meet or exceed 100% RDI/DRI (mL)	1250	1250	1500	1500	1000	750	1250	1000*	946	1250	1000	1000	1500	1500

GOAL: Start TF within **24**-48 hours of ICU admission for stable/mechanical ventilated pts with no contraindications to enteral nutrition (ie: bowel discontinuity, proximal jejunal fistula, SBO, intractable N/V/D, etc) **If the gut works, use it!**

* Except for vitamin A, chloride, phosphorus, and magnesium. **These formulas contain milk protein

All tube feeding formulas are gluten-free and either suitable for lactose intolerance or lactose-free

Quick Estimation of Tube Feed (TF) Goal Rate:
Caloric needs: 1-1.2 kcal/kg/hr or 25-30kcal/kg/day
(if BMI>25, use Ideal Body Weight)
Protein needs:
Critical Care:1.5-2g/kg, 2-2.5g/kg if pt on CVVHD
Acute Care: 1-1.5g/kg

Step 1: Look up pt's weight and BMI
e.g. Wt: 80kg BMI=24 (if BMI>25, use Ideal Body Weight)
Step 2: Estimate caloric needs:1-1.2 kcal/kg/hr or 25-30kcal/kg/day
e.g. 80kg x (1 -1.2 kcal/kg/hr) = 80-96 kcal/hr
Step 3: Choose an appropriate formula (see TF Formula Suggestions Box)
-If you choose 1 or 1.2kcal/mL formulas, then pt's weight is the TF goal rate
Replete (1 kcal/mL): 80kcal/hr ÷ 1kcal/mL = 80mL/hr (pt's wt)
Peptamen AF (1.2 kcal/mL): 96kcal/hr ÷ 1.2 = 80mL/hr (pt's wt)
-If you choose 1.5 or 2 kcal/mL formulas, then divide pt's weight by the kcal/mL e.g. 1.5 or 2.
Novasource-renal (2kcal/mL): 80kcal/hr ÷ 2kcal/mL =40mL/hr
Consult Nutrition Services or call unit Dietitian to adjust TF regimen

Calculation of Ideal Body Weight:
Men: 106 +6 lb for each inch >5 ft
Women: 100 lbs + 5 lb for each inch>5 ft

TF Formula Suggestions:

Critical Care/Trauma: Replete, Peptamen AF
Renal Failure: CVVHD —> Replete, Peptamen AF
HD —> Novasource Renal
Hyperglycemia: Peptamen AF, Peptamen Bariatric, Diabetisource AC, Replete
Diarrhea: Replete Fiber, Peptamen AF, Vivonex
Obesity (BMI> 35): Peptamen Bariatric
Non-ICU: Isosource HN, Fibersource, Isosource 1.5
****Do Not Use any fiber-containing EN formula if pt requires vasopressors!**

Feeding Protocol:
To start TF, under order entry type "Tube Feeding MPP"
Start feeds at 20mL/hr, advance10- 20mL every 4 hours until goal reached; water flush 30 mL Q4 hrs
If pt has increased refeeding risk, start feeds at 20mL/hr, increase 10mL every 8 hours until goal reached. Check electrolytes every 12 hours and replace as needed.

Fiber Supplementation:
Metamucil/Psyllium: 3.4g/pkg (70% soluble)
Nutrisource Fiber/Guar Gum: 3g/pkg (100% soluble)

Bolus TF
Bolus TF every 3-4 hours to avoid hunger
Example: Continuous TF regimen is Replete@80 mL/hr
Total volume pt. received in 24 hrs: 80 mL/hr x 24 hrs = 1920 mL
Bolus TF 4 times /day : total volume ÷ 4
1920 ÷ 4 = 480 mL
Bolus TF 5 times/day : total volume ÷ 5
1920 ÷ 5 = 384 mL
Bolus TF Order: Bolus TF Replete@480 mL q 4 hrs x 4 (or q 3 hrs x 5). Start bolus TF at 150 mL and increase 100 mL each bolus TF until goal of 480mL. Water flushes 50mL before and after each bolus TF
Consult Nutrition Services or call unit Dietitian to adjust TF regimen

If pt. is on Propofol, adjust TF rate to compensate for additional calories from Propofol (1.1lipid kcal/mL) New goal TF=TF rate – Propofol rate
e.g. Tube feed goal =85mL/hr, but Propofol=25mL/hr. New goal TF=85mL/hr -25mL/hr=60mL/hr with Beneprotein 2pkts TID to meet protein needs.