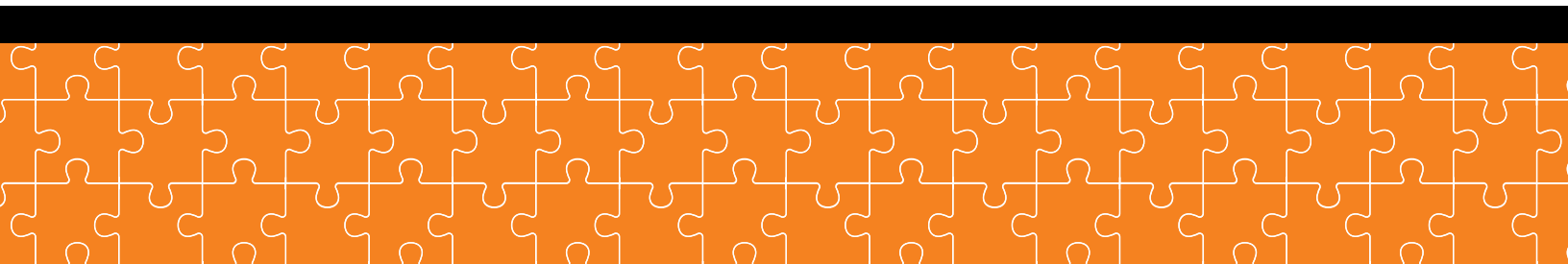


## **A Piece of the Puzzle for Dialysis Patients' Nutrition**

Toll Free: 844-633-3448





Executive Infusion is pleased to announce our nutritional services which include Intradialytic Nutrition (IDPN) and Total Parental Nutrition (TPN) therapies for patients on dialysis.

It is estimated that 33 percent of end-stage renal disease (ESRD) patients exhibit some degree of protein calorie malnutrition and 10 percent are severely malnourished.<sup>1</sup> Thus, almost half of the dialysis population is currently at risk or will, over the course of their lives on dialysis, develop some degree of malnutrition requiring more aggressive nutrition therapy.

Patients who may benefit from nutritional therapy demonstrate a severe protein malnourishment with documented inadequate protein intake over an extended length of time, and where markers of protein stores continue to decline despite aggressive attempts to improve protein intake.

After the therapy is prescribed, Executive Infusion is always ready to answer any questions and assist our patients and caregivers. To ensure the best therapy outcome possible, we continue to monitor our patients' progress and make adjustments based on each patient's response.

Our professional, experienced team includes Clinical Pharmacists, Registered Dieticians and Infusion Nurses; all supported by a staff specifically trained in I.V. Infusion Therapies. Our team is also available to provide in-service training to dialysis staff on how to manage patients receiving therapy.

For more information on nutritional therapy

**Please Call Executive Infusion at:**

**Telephone: 313-982-3220**

**Fax: 313-982-3221**

**Toll Free: 844-633-3448**

Thank you,

Aiman Abueida R.Ph, CEO Infusion Services

1. Cherry, N., Shalansky, K., 2002. Efficacy of Intradialytic Parenteral Nutrition in Malnourished Hemodialysis Patients. Am J Health-Syst Pharm. 59:1736-1741.



## IDPN SERVICES



### IDPN

- Intradialytic Parenteral Nutrition, or IDPN, is nutritional support therapy for patients on hemodialysis struggling with sufficient nutrition
- There are three main ingredients in IDPN therapy: **sugar, protein and fat**
- IDPN replaces some of the nutrients lost during dialysis treatments

### PURPOSE

- To improve nutrition and health
- Each patient is different and may find improvement in body weight, energy levels, leaner muscle mass, strength, appetite and capacity to fight infection

### ADMINISTRATION

- IDPN is administered through the dialysis catheter or site
- The solution has no taste or smell, and is given at the same time as the dialysis treatment
- IDPN is administered by a dialysis nurse

### PAYMENT

- Patients meeting specific qualification requirements may be covered under Medicare, Medicaid, and/or some private insurances

### PERSONAL TRAVEL

- IDPN can be shipped where treatments are received

### APPEARANCE OF IDPN

- IDPN does not contain potassium or phosphorus
- IDPN's milky-white appearance is produced by the lipid, or fat component, of the solution

### ALLERGIES

- Before starting your therapy, a nurse or dietitian will review any allergies you may have
- If you are allergic to eggs, the fat will be left out of your IDPN solution



# IDPN THERAPY



## **SIDE EFFECTS**

- Side effects include nausea, headache, fever, increased muscle cramping, dizziness and a sense of feeling full
- Side effects are minimal and can be controlled with gradual increase in administration rate and medications
- Your blood sugar level is monitored by the staff at your dialysis unit

## **REMAINING ON IDPN**

- You receive IDPN therapy at every dialysis treatment, and for the duration of your treatment, until you no longer require the additional nutritional support
- This varies from person to person and the extent of the patient's malnutrition
- Your doctor and dialysis staff will decide when your treatment should stop

## **FLUID OVERLOAD**

- The risk of receiving too much fluid is very low
- Fluid will be taken out during dialysis, while calories and protein from the IDPN will be absorbed
- IDPN does not affect daily fluid restriction

## **EFFECT OF SUGAR IN IDPN**

- Sugar within the IDPN solution can cause high blood sugar in non-diabetics
- This is why blood sugar levels are checked before, during and after each treatment
- For those that may experience high blood sugar, regular insulin can be given during IDPN therapy

## **IDPN AND LOW BLOOD SUGAR**

- Some people may experience low blood sugar after treatment
- Eating a snack as soon as treatment is over will help decrease the risk of low blood sugar

## **HOSPITALIZATION**

- If you are hospitalized, your IDPN infusions will be placed on hold until you are discharged

## **PRECAUTIONS**

- Discuss the risks and benefits of IDPN or IPN with your doctor, nurse and renal dietitian

**If you have additional questions regarding IDPN,  
PLEASE CONTACT EXECUTIVE INFUSION: 844-633-3448**



**COMPLETE YOUR PUZZLE**



## IntraDialytic Parenteral Nutrition



### **PHYSICIANS ORDER FORM**

- The form is a prescription, signed by a doctor, for IDPN



### **FAX COMPLETED ORDER FORM WITH PATIENT INFORMATION**

- Patient benefits are verified by our staff, and the Dialysis center is contacted regarding the status of your benefit coverage



### **DELIVERY**

- The Dialysis Center will be contacted with delivery dates and times

**PHONE: 313-982-3220 • FAX: 313-982-3221**

**TOLL FREE: 844-633-3448**



## HEMODIALYSIS POLICIES, PROCEDURES & GUIDELINES

<b>Procedure for IDPN Administration</b>	
1.	Refrigerate IDPN bags immediately upon delivery.
2.	Obtain IDPN bag from refrigerator at least one hour prior to infusion. If solution contains vitamins, leave plastic cover on bag until set-up for infusion. Check the label on the bag of IDPN for correct information. <ul style="list-style-type: none"> <li>• Patient name.</li> <li>• Patient prescription (check physician's order).</li> <li>• Volume and rate of infusion (check physician's order).</li> </ul> Expiration date.
3.	Inspect solution; discard if it appears separated like an oil and vinegar mixture, if it contains particulate matter, or if it is leaking. Inform your Executive Infusion Representative of any defective solutions.
4.	Prepare IDPN for infusion as appropriate.
5.	Insulin may be added to IDPN bag if ordered by physician. Assure needle length is adequate to diffuse insulin into the IDPN solution.
6.	Perform baseline blood glucose and repeat at least once per hour during the infusion. Document on the flow sheet.
7.	The infusion rate should be set according to the physician's orders.
8.	Calculate the TMP, being sure to add the volume of IDPN to the estimated weight to be removed.
9.	Adjust blood level in venous drip chamber slightly higher than normal.
10.	Connect the infusion tubing to the venous chamber infusion port once the treatment is initiated and begin the infusion.
11.	Obtain post-dialysis blood glucose 15 minutes before discontinuing dialysis and document on the flow sheet. As a guideline, glucose should be below 300mg/dl. The patient should be instructed to bring a snack (bread, crackers, or as outlined by the Renal Dietician) to eat post dialysis to curtail any possible rebound hypoglycemic effects.
12.	Document IDPN prescription and amount infused on flow sheet.
13.	Document patient tolerance on the flow sheet and/or progress notes.

## Steps for Administering Intraparenteral Nutrition (IPN)

1. Prepare dialysate as you normally would by heating to appropriate temperature.
2. Wash hands, wear gloves, and cover your nose and mouth with safety mask.
3. Remove the bag of amino acid solution from refrigeration and remove and discard the zip-lock bag containing the solution and tubing. There is no need to warm the amino acid solution.



4. Remove an individual sterile alcohol swab, and swab the port site of the warmed dialysate bag. Allow the site to dry approximately 15 seconds.

5. Remove the sterile needle cap on the free end of the tubing. Note: There will be no exposed needle. The needle is contained within a safety outer shell for your protection.
6. Firmly insert the safety outer shell containing the needle directly around the swabbed port of the dialysate. The needle should penetrate the swabbed area. It is important to insert the needle as straight as possible and avoid inserting the needle at an angle.



7. Hang the amino acid bag on the IV pole, and leave the dialysate bag set on the table. By hanging the amino acid bag higher, it will allow gravity to drain the amino acid solution into the dialysate solution.
8. Slide the wheel of the light blue open/close valve to the bottom. The tubing will now be free flowing and the solution contained in the amino acid bag should drain into the large bag of dialysate solution. Allow the amino acid bag to completely drain into the large dialysate bag. This draining process should take approximately 15 minutes.
9. Remove the recessed needle of the amino acid solution from the port of the dialysate bag. Discard the empty amino acid bag, tubing, and needle in the trash.
10. Mix the dialysate bag by lightly shaking it before hanging.
11. Continue with the normal procedure for administering and draining your dialysate solution.



**Executive Infusion Service LLC**

17000 Executive Plaza Drive Suite 201 Dearborn, MI 48126  
Office: (313) 982-3220 Fax: (313) 982-3221

**PHYSICIANS ORDER**

**Patient's Name:**

**Lipids are contraindicated if patient is Allergic to eggs)**

Last Name \_\_\_\_\_ First Name \_\_\_\_\_ Middle Initial \_\_\_\_\_

Address \_\_\_\_\_ Phone \_\_\_\_\_

Date of birth \_\_\_\_\_ Allergies \_\_\_\_\_ Dialysis Date \_\_\_\_\_

Dialysis Center \_\_\_\_\_ Address \_\_\_\_\_

Contact Person \_\_\_\_\_ Phone \_\_\_\_\_

**IDPN**

Formulation #1 (750 ml)  
Amino Acids 10% 500 ml

Formulation #1 (600 ml)  
Amino Acids 10% 250 ml  
Dextrose 20% 250 ml  
Lipids 20% 100 ml

Dextrose 20% 250 ml (nondiabetic)

Dextrose 10% 250 ml (diabetic)

Amino Acids 10% \_\_\_\_ ml \_\_\_\_.  
Dextrose \_\_\_\_ % \_\_\_\_ ml \_\_\_\_.  
Lipids \_\_\_\_ % \_\_\_\_ ml \_\_\_\_.  
Total Volume \_\_\_\_ ml \_\_\_\_.

Dr. Signature \_\_\_\_\_ Date \_\_\_\_\_





