



2011

# Nephrology and Renal Transplant Days

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Vancouver



**BC  
TRANSPLANT**  
An agency of the Provincial Health Services Authority



**BC Renal  
Agency**  
An agency of the Provincial  
Health Services Authority

# Renal Jeopardy: Challenge Your Renal Nutrition Knowledge

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# *Answer Key*

**Hold up the coloured paper to indicate your answer for each question.**

- A. Blue
- B. Yellow
- C. Pink
- D. Green





## *Question*

**Which is the correct spelling?**

- A. Dietitian
- B. Dietician



# *Solution*

**Which is the correct spelling?**

**A. Dietitian**

B. Dietician



# Question

**Which shelf stable foods are suitable for a renal patient to include in their disaster-planning kit?**

- A. canned soup
- B. granola bars
- C. beef jerky
- D. dried fruit





## *Solution*

**Which shelf stable foods are suitable for a renal patient to include in their disaster-planning kit?**

- A. canned soup
- B. granola bars
- C. beef jerky
- D. dried fruit

**The correct answer is none of the above.**

**Refer to your unit/health authority  
disaster handouts with sample meal plans.**



## *Question*

**Which of the following South Asian foods is acceptable on a renal diet?**

- A. Daal
- B. Paneer
- C. Tofu
- D. Aloo Mutter





## *Solution*

**Which of the following South Asian foods is acceptable on a renal diet?**

- A. Daal – high K, good source of protein**
- B. Paneer – high Na, PO<sub>4</sub>, K, reasonable protein**
- C. Tofu – high Ca, good source of protein**
- D. Aloo Mutter – high K, not a source of protein**

Must be evaluated individually and all may be appropriate depending on lab values







## *Question*

**Which form of phosphate is the most bioavailable?**

- A. nuts and legumes
- B. red meats
- C. non-dairy creamer
- D. milk and dairy products



# *Solution*

**Which form of phosphate is the most bioavailable?**

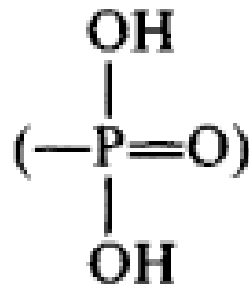
- A. nuts and legumes
- B. red meats
- C. non-dairy creamer**
- D. milk and dairy products



## Question

**Which food has the most phosphorus?**

- A. 3 ounces of fresh chicken
- B. ¼ cup almonds
- C. 1 cup milk
- D. 3 ounces frozen, seasoned chicken





## *Solution*

**Which food has the most phosphorus?**

A. 3 ounces of fresh chicken (196mg / 137mg)

B. ¼ cup almonds ( 178mg / 89mg)

**C. 1 cup milk (245mg / 208mg)**

**D. 3 ounces frozen, seasoned chicken  
(260mg / 201mg)**

Total amount / amount absorbed based on bioavailability



# Question

**Your client often forgets to take phosphate binders with meals but takes them 1-2 hours later. This is equally effective.**

- A. True
- B. False







## *Solution*

**Your client often forgets to take phosphate binders with meals but takes them 1-2 hours later. This is equally effective.**

A) True

**B) False**



**Calcium with meals = phosphate binder**  
**Calcium between meals = calcium supplement**



## *Question*

**A patient complains of thirst. Your first assumption is:**

- A. they must be eating too much salt
- B. this might be a side effect of one of their medications
- C. it's hot outside, and they are just a bit dehydrated
- D. their blood sugar must be high





## *Solution*

**A patient complains of thirst. Your first assumption is:**

- A. they must be eating too much salt**
- B. this might be a side effect of one of their medications**
- C. it's hot outside, and they are just a bit dehydrated**
- D. their blood sugar must be high**

**All of these are possible causes**





## *Question*

**An elevated serum sodium could be related to eating KFC last night for dinner.**

- A. True
- B. False






## *Solution*

**An elevated serum sodium could be related to eating KFC last night for dinner.**

A. True

**B. False**

**Serum sodium does not reflect salt intake.  
It is affected by the state of hydration.**



## *Question*

**Which minerals are often present in sodium-reduced foods?**

- A. potassium (KCl)
- B. phosphate (KPO<sub>4</sub>)
- C. Arsenic (ArCl)
- D. more than one of the above



## *Solution*

**Which minerals are often present in sodium-reduced foods?**

- A. potassium (KCl)**
- B. phosphate (KPO<sub>4</sub>)**
- C. Arsenic (ArCl)
- D. more than one of the above**



**Potassium and phosphate are not required on the Nutrition Facts table.**

**It is important to read the ingredient list.**

## *Question*

**Which of the following is highest in potassium?**

- A. 250 mL orange juice
- B. 3 cups black coffee
- C. 4 ounce salmon filet
- D. 1 cup Raisin Bran







## *Solution*

**Which of the following is highest in potassium?**

- A. 250 mL orange juice – 451mg
- B. 3 cups black coffee – 384mg
- C. 4 ounce salmon filet – 469mg**
- D. 1 cup Raisin Bran – 372mg

**Protein is rarely restricted despite K and PO<sub>4</sub> content due to high protein requirements for dialysis clients; this may differ in CKD and post transplant where protein needs are lower.**



## *Question*

**Which South Asian food has the most potassium?**

- A. 1 cup of daal
- B. 3/4 cup saag
- C. 1 large Vegetarian Samosa
- D. 1 medium mango





## *Solution*

**Which South Asian food has the most potassium?**

- A. 1 cup of daal – approx 300 - 700mg**
- B. 3/4 cup saag – approx 500mg
- C. 1 large Vegetarian Samosa – approx 250mg
- D. 1 medium mango – approx 325mg

**Daal is a primary protein source for many vegetarian clients.**







## *Question*

**Which of the following are potential causes of hyperkalemia?**

- A. binging on a bag of black licorice at the movies
- B. chronic acidosis
- C. uncontrolled (elevated) blood glucose in diabetes
- D. medications such as ACE inhibitors, spironolactone, steroids, NSAIDs, etc.





## *Solution*

**Which of the following are potential causes of hyperkalemia?**

- A. binging on a bag of black licorice at the movies**
- B. chronic acidosis**
- C. uncontrolled (elevated) blood glucose in diabetes**
- D. medications such as ACE inhibitors, spironolactone, steroids, NSAIDs, etc.**

**All of these are possible causes!**





## *Question*

**Your patient asks if it is ok to drink pomegranate juice. Your response:**

- A. should be ok - it's tasty isn't it?
- B. I'll go and ask the Dietitian for you.
- C. I'll look it up on the internet when I get a moment.
- D. the Dietitian is not here today, but I know she keeps diet handouts in the waiting room.  
I'll grab a potassium list for you.





## *Solution*

**Your patient asks if it is ok to drink pomegranate juice. Your response:**

- A. should be ok - it's tasty isn't it? – 533mg K in 1 cup
- B. I'll go and ask the Dietitian for you.**
- C. I'll look it up on the internet when I get a moment.
- D. the Dietitian is not here today, but I know she keeps diet handouts in the waiting room. I'll grab a potassium list for you.**

**PROMIS has standardized diet handouts**

**Check with your RD!**



## Question

**Any renal patient can receive Nepro or Ensure supplements free of charge.**

- A. True
- B. False





## *Solution*

**Any renal patient can receive Nepro or Ensure supplements free of charge.**

A. True

**B. False**



**There are specific criteria to be eligible for nutrition supplements.**

## *Question*

**Anyone with a GFR less than 60 mL/min should take Replavite instead of a regular daily multivitamin.**

- A. True
- B. False





## *Solution*

**Anyone with a GFR less than 60 mL/min should take Replavite instead of a regular daily multivitamin.**

A. True

**B. False**

- **Standard in dialysis**
  - **General guideline in CKD GFR <30 avoid regular multivitamin**
  - **Rare use of Replavite post-transplant unless GFR declines**
- 
- 





## *Question*

**Active vitamin D (such as 1-alpha) helps to prevent osteomalacia (vitamin D deficiency).**

- A. True
- B. False

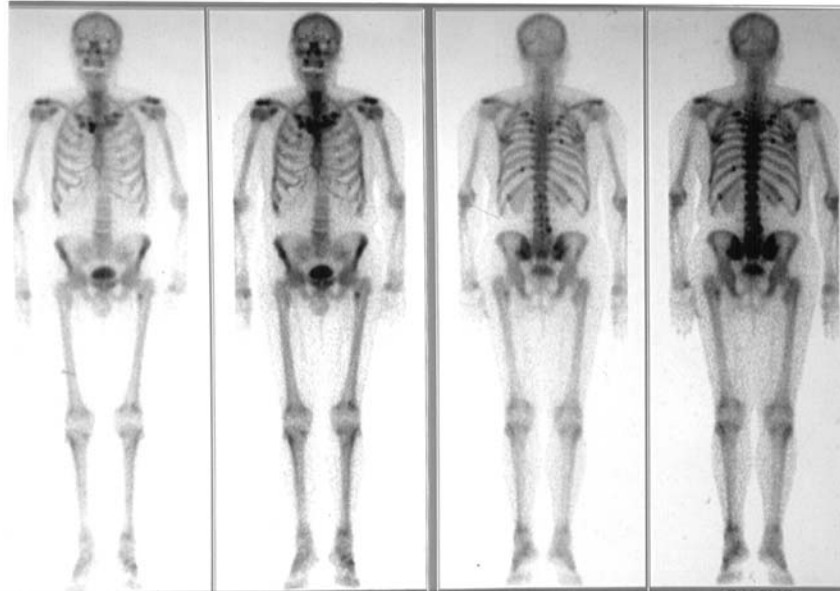


## *Solution*

**Active vitamin D (such as 1-alpha) helps to prevent osteomalacia (vitamin D deficiency).**

A. True

**B. False**





## *Question*

**Which of the following herbal remedies does not interact with immunosuppressant medications?**

- A. garlic
- B. Noni Juice
- C. Echinacea
- D. Ginko Biloba





## *Solution*

**Which of the following herbal remedies does not interact with immunosuppressant medications?**

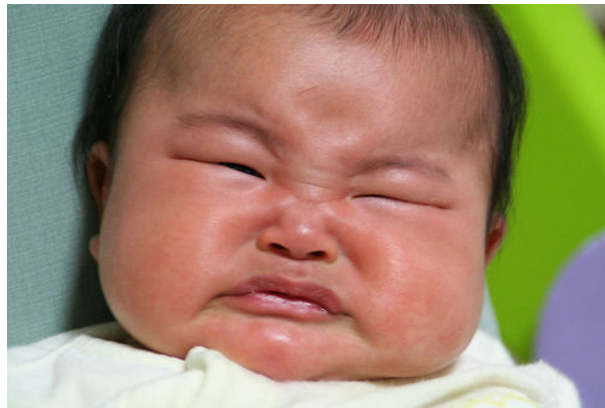
- A. Garlic - moderate risk for interaction
- B. Noni Juice**
- C. Echinacea – moderate risk for interaction (as well as warfarin and corticosteroids)
- D. Ginko Biloba – moderate risk for interaction (as well as anti-diabetes OHAs, anti-arrythmias, HCTZ and more!)



## *Question*

**A patient complains of constipation. States he hasn't had a BM in 4 days. Your response:**

- A. review his prescriptions for colace and/or senokot.
- B. tell him to drink prune juice.
- C. encourage him to be more physically active.
- D. ask the RD to review high fibre foods.





## *Solution*

**A patient complains of constipation. States he hasn't had a BM in 4 days. Your response:**

- A. review his prescriptions for colace and/or senokot.**
- B. tell him to drink prune juice 1 cup = 747mg K**
- C. encourage him to be more physically active.**
- D. ask the RD to review high fibre foods.**





## *Question*

**Which of the following can impact appetite?**

- A. Exercise
- B. Depression
- C. Medications
- D. Conditions such as cancer or diabetic gastroparesis





## *Solution*

**Which of the following can impact appetite?**

- A. Exercise**
- B. Depression**
- C. Medications**
- D. Conditions such as cancer or diabetic gastroparesis**

**Appetite is virtually always multifactorial**







## *Question*

**Which of the following may play a role for your patient with persistently low serum albumin?**

- A. chronic peritonitis
- B. hepatitis C
- C. vegetarian diet
- D. fluid overload





## *Solution*

**Which of the following may play a role for your patient with persistently low serum albumin?**

- A. chronic peritonitis**
- B. hepatitis C**
- C. vegetarian diet**
- D. fluid overload**



**Although nutrition is important, there are many non-nutritional causes of low albumin.**





## *Question*



**Your PD client swears they are doing everything they can to follow a 'diabetic diet' and taking their OHAs correctly, what else could be playing a role in their elevated blood glucose levels?**

- A. they keep forgetting that Grande Moccaccinos are a source of sugar
  - B. their PD dialysate solution is providing calories in the form of sugar
  - C. they missed their last 3 appointments at the local Diabetes Education Centre
  - D. their diabetes has progressed despite their best effort and they may need insulin or medication review
- 
- 



## *Solution*

**Your PD client swears they are doing everything they can to follow a 'diabetic diet' and taking their OHAs correctly, what else could be playing a role in their elevated blood glucose levels?**

- A. they keep forgetting that Grande Moccaccinos are a source of sugar**
  - B. their PD dialysate solution is providing calories in the form of sugar**
  - C. they missed their last 3 appointments at the local Diabetes Education Centre**
  - D. their diabetes has progressed despite their best effort and they may need insulin or medication review**
- 
- 

## *Question*

**Hemoglobin A1c is always an accurate assessment of glycemia in renal disease.**

- A. True
- B. False





## *Solution*

**Hemoglobin A1c is always an accurate assessment of glycemia in renal disease.**

A. True

**B. False**

**Important to look at all factors, including self blood glucose monitoring records.**





## *Question*

**When reviewing anemia lab results with your patient, they state "I don't understand why my hemoglobin is so low - I eat so much red meat?"**

**Your reply:**

- A. explain that with kidney disease, diet has very little impact on iron and hemoglobin levels
- B. I've heard that raisins are high in iron
- C. offer to have the Dietitian review high iron foods
- D. why don't you try eating spinach





## *Solution*

**When reviewing anemia lab results with your patient, they state "I don't understand why my hemoglobin is so low - I eat so much red meat?"**

**Your reply:**

- A. explain that with kidney disease, diet has very little impact on iron and hemoglobin levels**
- B. I've heard that raisins are high in iron
- C. offer to have the Dietitian review high iron foods
- D. why don't you try eating spinach







## *Question*

**Your post transplant client has a magnesium level of 0.61 mmol/L (normal range 0.7-1.0) .  
Your suggestion:**

- A. “Eat more nuts”
- B. “Don’t worry about it, it is from the medications”
- C. Oral replacement
- D. IV replacement





## *Solution*

**Your post transplant client has a magnesium level of 0.61 mmol/L (normal range 0.7-1.0).  
Your suggestion:**

- A. “Eat more nuts”
- B. “Don’t worry about it, its from the medications”**
- C. Oral replacements
- D. IV replacement

**This would depend on if the patient is symptomatic, but low Mg is a very common side effect of tacrolimus and cyclosporin.**



## *Question*

**All renal patients should follow a 1 litre per day fluid restriction.**

- A. True
- B. False



## *Solution*

**All renal patients should follow a 1 litre per day fluid restriction.**

A. True

**B. False**



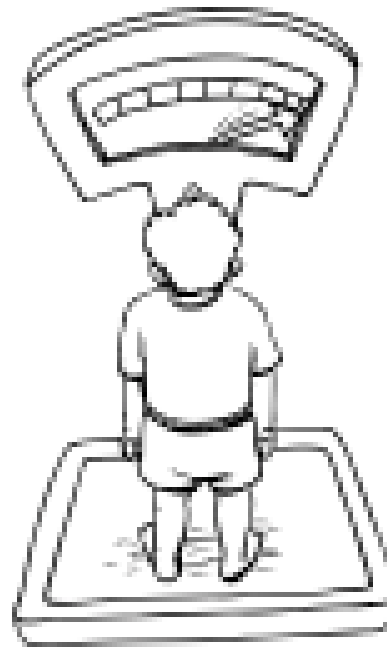
**Fluid restriction is not necessary for all kidney patients. For hemodialysis patients, it is usually based on urine output.**



## *Question*

**Hemodialysis patients should aim for interdialytic weight gains (IDWG) of less than 2.5 kg.**

- A. True
- B. False





## *Solution*

**Hemodialysis patients should aim for interdialytic weight gains (IDWG) of less than 2.5 kg.**

A. True

**B. False**

**Look at fluid gains as a percentage of the patient's body weight.**



## *Question*

**Your hemodialysis patient's blood pressure crashes at the end of the run, what do you do?**

- A. bolus 500mL normal saline
- B. give 1 cup of chicken broth
- C. give 1 dill pickle
- D. discontinue all the BP meds!





## *Solution*

**Your hemodialysis patient's blood pressure crashes at the end of the run, what do you do?**

- A. bolus 500mL normal saline - 1771 mg Na
- B. give 1 cup of chicken broth – 770 mg Na
- C. give 1 dill pickle – 928 mg Na
- D. discontinue all the BP meds!

**Follow your unit's protocol.**

**Maximum daily sodium intake is 1500mg!  
Remember that some treatments can  
contribute significant amounts of sodium!**





# Question

**Which medication contains the most sodium?**

- A. Kayexalate
- B. Sodium Bicarbonate





## *Solution*

**Which medication contains the most sodium?**

**A. Kayexalate – 15 gram dose = 471 mg Na**

B. Sodium Bicarbonate – 1 gram dose = 275 mg Na



## *Question*

**Patients on home hemodialysis can follow a liberal diet with minimal restrictions:**

- A. True
- B. False





## *Solution*

**Patients on home hemodialysis can follow a liberal diet with minimal restrictions:**

A. True

**B. False**

**Renal diets are individual, based on each patient's bloodwork results.**



