

Filipino “Kulinarya” Cuisine and Chronic Kidney Disease

Thessa Obrero Churillo, RD, CSR

FILIPINO COMMUNITIES EXIST in many places around the world. Migration of Filipinos is recorded as early as 1417 during a trade mission to China followed by travel in galleon ships during the Spanish colonization between 1521 and 1898.¹ A more organized migration started in the early 1900s through the need for agricultural labor in Hawaii followed by the migration of Filipino veterans who served in the U.S. armed forces after World War II. During the 1970s, the Philippines experienced a significant increase in the unemployment rate resulting in an increase in migration as contract workers went to different countries to seek work. This last wave of migration continues to persist. On the basis of the 2009 Stock Estimate of Filipinos Overseas, there are approximately 8.6 million overseas: 4.1 million of them are permanent migrants, 3.9 million are temporary migrants, and more than 600,000 are irregular migrants.² According to the 2009 Community Survey, there are approximately 3.2 million Filipinos in the United States, ranking 2nd among Asians after 3.8 million of Chinese descent.³

The Philippine Renal Disease Control Program 2001 reports that 11,250 Filipinos nationwide were estimated to develop end-stage renal disease each year.⁴ In 2003, there were 5,070 patients who were started on dialysis⁴ with an increase to 7,267 patients who started dialysis or received a kidney transplant in 2007.⁵ There are no statistical data on the number of dialysis patients of Filipino descent in the United States because most demographic questions combine all Asians into one category. With global exportation of food ingredients, Filipinos anywhere in the world continue to enjoy Philippine delicacies. The goal of this patient education article is to provide guidance in preparing Filipino cuisine that is “renal or CKD friendly.” There has

been a growing need for patient education geared toward Filipinos and how to modify a regular meal plan and still be able to incorporate cultural foods in a chronic kidney disease (CKD) nutrition plan.

Filipino cuisine is a fusion of Filipino history, from the indigenous food in the prehistoric era to the influences of Southeast Asian cooking introduced by trade and the colonial influences introduced by conquest.⁶ The Filipinos themselves describe their cuisine as *sari-sari* (varied) and *halo-halo* (mixed) because of the wide array of influences found even within a single meal.⁷ During the Malayo-Polynesian era, the most common food preparation methods for Filipino foods were boiling, steaming, and roasting. The Chinese then brought crops including rice, spices, and condiments—mainly soy sauce and fish sauce. They introduced different cooking methods such as stir frying, deep frying, and making soup bases. Three hundred years of Spanish colonization introduced cooking methods such as sautéing with garlic, onion, and tomatoes and the use of corn, potatoes, and peppers. The marriage of Spanish and Chinese cooking is noticeable in Philippine cuisine, especially in adobo, one of the most famous Filipino dishes. The Filipino version of adobo adds soy sauce to the pickling sauce. From 1898 to 1946, U.S. presence in the islands introduced new food preparation techniques—speed and convenience, including the use of prepackaged and canned food products. Today, Filipino cuisine continues to evolve as new ingredients and cooking techniques, styles, and methods find their way into the country and influence the people.⁸

One of the major challenges with Filipino food and a CKD nutrition plan is adherence to a low-sodium intake. One of the distinct characteristics of Filipino cuisine is “counterpoint,” which means pairing of something sweet with something salty, and it results in surprisingly pleasing combinations. Examples include *champorado* (sweet cocoa rice porridge) being paired with *tuyo* (salted, sun-dried fish), *dinuguan* (a savory stew made of pig’s blood and innards) paired with *puto* (sweet, steamed rice cakes), and unripe fruits such as mangoes (which are only slightly sweet but very sour) are eaten dipped in salt or *bagoong* (fermented salty fish).⁹ Another challenge is that most native fruits and vegetables are high in potassium, but with guidance, alternatives can

University of Virginia Health System, Kidney Center Dialysis, Charlottesville, Virginia.

Financial Disclosure: The author declares that there are no relevant financial interests.

Address correspondence to Thessa Obrero Churillo, RD, CSR, University of Virginia Health System, Kidney Center Dialysis, Box 800-405, Charlottesville, VA 22908. E-mail: tmo4c@virginia.edu

© 2014 by the National Kidney Foundation, Inc. All rights reserved.
1051-2276/\$36.00

<http://dx.doi.org/10.1053/j.jrn.2014.04.003>

be found. The Philippines has approximately 175 languages or dialects, but Tagalog is known to be the national language. Most Filipinos can understand English because it is one of the languages spoken in schools in the Philippines. In an effort to make this patient education article more valuable so that it can be used and understood by clients and medical professionals, both languages have been included for most of the foods listed.

References

1. Ang D. Philippine international migration: Causes and consequences. 2008. <http://www.philippinesintheworld.org/?q=node/1112>. Accessed September 30, 2013.
2. Statistics Commission on Filipino Overseas. http://www.cfo.gov.ph/index.php?option=com_content&view=article&id=1309:statistics&catid=110:frequently-asked-questions&Itemid=858. Accessed October 5, 2013.
3. Facts for features: Asian/Pacific American Heritage Month: May 2011. http://www.census.gov/newsroom/releases/archives/facts_for_features_special_editions/cb11-ff06.html. Accessed October 5, 2013.
4. Dayrit M. *Revised Rules and Regulations Governing Registration, Licensure and Operation of Dialysis Clinics in the Philippines*. Manila, Philippines: Department of Health; 2004. Accessed October 5, 2013, <http://www.doh.gov.ph/system/files/ao163-04.pdf>.
5. Danguilan R. The burden of kidney disease in the Philippines. ABS-CBS News. <http://www.abs-cbnnews.com/node/14995>. Accessed October 5, 2013.
6. Fenix M. *What is Filipino Food? Kulinarya. A guidebook to Philippine Cuisine*. Mandaluyong City, Philippines: Anvil; 2008.
7. Garcia M. *Filipino Cooking: Asia's Best-kept Culinary Secret. The Filipino Cookbook. 85 Homestyle Recipes to Delight Your Family and Friends*. North Clarendon, VT: Tuttle; 2010.
8. Fernandez, D. *What is Filipino Food. Lasa: A Guide to Dining in the Provinces*. Metro Manila. Bookmark; 1990.
9. Philippines. Culinary: Cooking style. Available at: <http://www.discoverasianow.com/philippines/culinary/#2>. Accessed May 19, 2014.

Tips for Success: Modifying Philippine Cuisine to the CKD Nutrition Plan

1. Leach vegetables and root crops (potatoes, yams, purple yam) to lower the amount of potassium.
2. Leaching legumes (*munggo*) can also reduce amount of potassium, but make sure to take your phosphate binders.
3. Use low-sodium soy sauce and limit the suggested amount to half of the original recipe. For recipes calling for a soy sauce/vinegar combination, try using balsamic vinegar for the “dark” sauce appearance.
4. When using green leafy vegetable for soups, add ½ cup raw leaves just before serving for lesser potassium content.
5. Enjoy the natural flavors of fruits without dipping in salt or other salty sauces.
6. Incorporate spices such as black pepper (*paminta*), hot pepper (*sili*), and bay leaf.
7. Use fresh ingredients rather than using high-sodium packaged sauces and “mix-mix” or prepared powder seasonings.
8. Some cola drinks from other countries do not add phosphoric acid or any form of phosphorus. (I checked the cola ingredients in the Philippines last summer and it did not have phosphorus additives.) Always read your labels, watch your fluid intake, and you may be able to find another type of cola beverage without high phosphorus content.
9. Minimize the use of salted and/or dried fish. This process was used in the past because of the lack of refrigeration. Enjoy fresh fish instead.
10. For recipes calling for coconut milk, I suggest substituting with sour cream or ½ cup milk. Coconut milk has double the amount of potassium compared with regular milk. Just add coconut extract to obtain the coconut flavor.

Fruits

Table 1. Fruits, Including Common Fruits in the Philippines

Allowed Limit to 3 Servings/d. 1 Serving = ½ Cup or Medium (Size of Tennis Ball) Watch Your Portion Sizes	Limit or Avoid 1 Serving = ½ Cup and Has >150 mg Potassium/Serving
Apple, <i>mansanas</i>	Apricot
Blackberry, <i>lumbay</i>	<i>Atis</i> (sweetsop)
Blueberry	Avocado, <i>abokado</i>
Cherries, <i>seresa</i>	<i>Balimbing</i> (<i>carambola</i>), starfruit
Cranberry, <i>kranberya</i>	Banana, <i>saging</i> . any variety: <i>saba</i> , <i>latundan</i> , <i>señorita</i> , lady fingers
Grapefruit, <i>pomelo</i> , <i>suha</i> , limit to ¼ per serving	Breadfruit, <i>rimas</i>
Grapes, <i>ubas</i>	Cantaloupe, <i>melon</i>
Lemon, <i>kalamansi</i> , <i>limon</i> , <i>dayap</i> , <i>sitron</i>	<i>Chico</i> , sapodilla
Lime, <i>kalamanski</i> , <i>apog</i>	<i>Durian</i>
Macopa, <i>makopa</i>	Guava, <i>bayabas</i> , including juice
<i>Mangosteen</i>	Honeydew, <i>melon</i>
Passion fruit, <i>pagkahilig bunga</i>	Kiwi
Peaches, canned	Jackfruit, <i>langka</i> (less than a tablespoon is fine to accent desserts)
Pear, <i>peras</i>	Lanson, <i>lanzones</i> , <i>lansones</i>
Pineapple, <i>pinya</i> . limit juice to ½ cup	Mango, <i>manga</i>
Plums, <i>sirwelas</i> , limit 2	Nectarines
Pomegranate, <i>granada</i>	Orange, orange juice, <i>dalandan</i>
<i>Rambutan</i>	<i>Papaya</i>
Raspberry, <i>prambuwasas</i>	Prunes
<i>Santol</i>	<i>Sineguelas</i> (<i>Spanish plum</i>)
Strawberry	Tamarind, <i>sampaloc</i> . No for pulp; yes with nectar for flavoring in soups. Limit fresh fruit to less than 5.
Tangerine, <i>dalanghita</i> , <i>mandarin</i>	Tropical fruit cocktail
Watermelon, <i>pakwan</i> (1 cup/serving = ½ cup fluid)	

Italicized words are in Tagalog.

Vegetables

Table 2. Vegetables, Including Common Vegetables in the Philippines

Allowed Limit to 2 Servings/d 1 Serving is ½ Cup	Limit or Avoid 1 Serving = ½ Cup and Has >150 mg Potassium/Serving
<i>Alugbati</i> , Malbar spinach	<i>Ampalaya</i> , bittermelon/bittergourd leaves and fruit
Asparagus	Artichoke
Beans (green), <i>sitaw</i>	Broccoli
Bean sprouts, <i>toge</i> , cooked and drained	Camote—sweet potato tops (leaves), <i>talbos ng kamote</i> , unless strictly limit to ½ cup
Cabbage, <i>repolyo</i>	
Carrot, <i>karot</i>	Cassava, <i>kamoteng kahoy</i>
Cauliflower	Chili pepper leaves, <i>dahon ng sili</i>
<i>Chayote</i>	Dried beans and dried peas
Corn, <i>maiz</i>	<i>Gabi</i> , taro both root/tuber and leaves
Cucumber, <i>pipino</i>	<i>Labanos</i> , Oriental-daikon white radish
Eggplant, <i>talong</i>	<i>Labong</i> , Bamboo shoot
Garden/green peas	<i>Munggo</i> , mung beans
Garlic, <i>bawang</i>	Parsnips
Ginger, <i>luya</i>	<i>Patola</i> , sponge gourd
Horseradish, <i>malunggay</i> leaf tips (½ cup)	Potato, <i>patatas</i>
<i>Kangkong</i> , swamp cabbage	Pumpkin
Lettuce, <i>litsugas</i> (½ cup)	<i>Puso ng saging</i> , banana blossom
Okra	<i>Sigarilyas</i> , winged bean
Onion, <i>sibuyas</i>	Soybeans
Pepper, all types	Squash, winter (acorn, butternut), <i>kalabasa</i>
<i>Petsay/pakchoi</i> , Chinese cabbage (½ cup)	Tomato: limit to 2 thin slices
Radish, not iredal	Tomato juice/sauce
Rice	<i>Ube</i> , purple yam
Seaweed, <i>lato</i>	<i>Ubod</i> , heart of palm
<i>Singkamas</i> , jicama	
Turnip, white	
Watercress	
Yellow squash	
Zucchini	

Italicized words are in Tagalog.

Protein

Fresh meat and seafood are allowed. However, AVOID organ meats (liver, tongue [*lengua*], intestines [*pacreas*]), processed meats (*tocino*, *longaniza*), salted fish (*bagoong*, *alamang*, *tuyo*), and canned meats.

Avoid ALL nuts.

Dairy

Limit to ½ cup dairy and 1 ounce of cheese.

Other

It is important to limit all products with coconut, chocolate cocoa, Ovaltine, beer, cola, pancake/biscuit/cake/dessert mixes or any prepared products with phosphorus additives such as phosphoric acid, phosphosoda, etc. Tobacco leaves are also high in potassium.

Condiments

Limit soy sauce, fish sauce (*patis*), and packaged mixes because of the high sodium content.

Common Dishes in Filipino Cuisine

Dish	CKD Adherence/Modifications
Adobo	With varied variations. Minimize the use of soy sauce and consider using more vinegar.
<i>Atchara</i> (pickled papaya)	Papaya is high in potassium.
Barbecue, grilled skewered meat	Limit the use of soy sauce.
<i>Binakol</i> (meat stewed in coconut water)	No. Coconut water is high in potassium.
<i>Bopis, dinuguan, batchoy, callos</i>	These dishes use internal organs, which are high in phosphorus. Regular meat may be used to substitute. Pork blood in <i>dinuguan</i> is acceptable in terms of potassium and phosphorus content.
<i>Crispy pata/lechon kawali</i> (deep-fried pork knuckles or belly)	In moderation because of its high fat content.
<i>Daing na bangus</i> (marinated milkfish)	Reduce soy sauce and salt. Use more vinegar.
<i>Guinataang</i> (ingredients stewed in coconut milk) including <i>laing</i>	No. Coconut milk is high in potassium.
<i>Humba</i> (braised pork belly)	Trim off fat. Minimize use of peanuts and soybean paste.
<i>Kaldereta</i> (stew in tomato sauce)	Limit the sauce when eating this dish.
<i>Kare-kare</i> (ox-tail stewed in peanut sauce)	Ox-tail and peanuts are high in phosphorus and potassium.
<i>Lechon</i> (roasted pig)	Yes.
<i>Lumpia</i> , fried and fresh	Refer to above list for filling. For fresh <i>lumpia</i> , skip the hearts of palm (<i>ubod</i>).
<i>Munggo guisado</i> (Mung bean stew)	<i>Munggo</i> is high in both phosphorus and potassium.
<i>Paksiw</i> (ingredients stewed in vinegar)	Yes.
<i>Pancit</i>	Yes. Include allowed ingredients. Mung bean noodles (<i>sotanghon</i>) are low in potassium.
<i>Pancit molo</i> (dumpling soup)	Include in fluid allowance.
<i>Pinakbet</i> (vegetable stew)	Include allowed vegetables. Avoid <i>ampalaya, kalabasa</i> .
<i>Pochero</i> (boiled meat and vegetables)	Include allowed vegetables. Avoid banana or saba and chick peas. Leach potatoes first before adding.
<i>Relleno</i> (stuffed meat)	Stuff meat with allowed ingredients.
<i>Sinigang</i> (soured broth)	Use tamarind nectar or juice from fresh tamarind. Powdered mixes of tamarind are high in sodium. Skip the <i>labanos</i> (Oriental radish). Use <i>kangkong</i> instead of spinach. Count broth in your fluid allowance.
<i>Sisig</i> (thrice cooked pork)	This dish uses internal organs which are high in phosphorus (pig’s head: jowls, cheek, ears).
Tapa, beef	Skip salt.
<i>Tinolang manok</i> (chicken soup)	Instead of green papaya, use chayote. Choose lower potassium green leafy vegetable such as adding 1/2 cup of <i>malunggay</i> just before serving.

Italicized words are in Tagalog.

Common Desserts or Snacks (*Merienda*) in Filipino Cuisine

If you have diabetes, incorporate these in your carbohydrate allowance.

Dessert/Snack	CKD Adherence/Modifications
<i>Buko</i> fruit salad	<i>Buko</i> is high in potassium.
<i>Braze de mercedes</i> (boiled meringue with creamy filling)	Yes.
<i>Cassava bibingka</i> (Cassava cake)	Cassava and coconut milk are high in potassium.
<i>Champorado</i> (chocolate rice porridge)	Chocolate or cocoa is high in potassium and phosphorus.
<i>Guinomis</i> (pandan and molasses-flavored gelatin)	Include gelatin in fluid allowance. Use small amount of coconut cream or use whipped cream as topping.
<i>Halo-halo</i> (mixed fruit and beans and shaved ice)	Include shaved ice in fluid allowance. Limit milk/ice cream to ½ cup. Skip the beans, <i>camote, ube</i> , and <i>saba</i> . Use small amount of <i>lanka</i> (jackfruit), <i>sago</i> , corn, and little macapuno strings.
<i>Kutsinta</i>	Minimize the use of coconut as topping.
<i>Leche flan</i> (milk custard)	Yes. Take your phosphate binder.
<i>Maja blanca</i> (white coconut custard)	No. Coconut is high in potassium.
<i>Palitaw</i>	Minimize the use of coconut as topping. Limit the use of nuts and sesame seeds.
<i>Pandesal</i> (salted bread)	Yes. Sodium content is acceptable.
<i>Puto</i> (rice cake)	Yes.
<i>Turon</i> (crisp banana rolls)	No. Banana is high in potassium. Try using other fruits to wrap. I tried apple and pears with good results.

Italicized words are in Tagalog.