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Community Nutrition

Group Project: Modification of Traditional Hispanic Recipes for Diabetic Diets

May 9, 2005

Assigned recipe: Empanadas (Fritters)

Limitations:

1. Retain beef as main filling ingredient; turkey, soy or other fillings would be perceived as not authentic. 90% lean ground beef was felt to be the limit of what the target audience would accept and pay for.
2. Target market might be willing to replace seasoning mixes with individual or fresh seasonings, but would not be willing to replace pre-made, purchased dough circles with dough made from scratch.

Initial Modifications:

1. Beef: the beef used was changed from 80-85%lean to 90% lean. The leaner beef was also rinsed after cooking to remove as much fat as possible. This reduced the total fat, saturated fat, and cholesterol content.
2. Vegetables: the amount of peppers and onions were increased from ½ cup total to 2 cups total to increase the ration of vegetables to meat, add vitamins and fiber, and reduce fat per serving. The amount of garlic was increased from 2 cloves to 4 cloves and a minced jalapeno was added, to help replace flavor lost from reducing the sodium content and fat content.
3. The Adobo and Sazon were eliminated. They are primarily salt/sodium. It was felt that the canned tomato sauce and pre-made dough circles contained enough sodium for flavor without adding more. Flavor was additionally bumped up with fresh cilantro, cumin, chili powder, an increase in the black pepper used, and the addition of one tablespoon of tomato paste. A pinch of saffron was added (optional), more because of the emphasis on the Sazon package of adding “color to your food” (artificial coloring and annatto) than for flavor properties. Tumeric could be substituted for the saffron.
4. Fat for deep frying: information provided indicated that target audience primarily used lard or Crisco shortening for deep frying. This was changed to olive oil to reduce the saturated fat content and cholesterol content, and replace with some heart healthy unsaturated fat.
5. Cooking method: Baking and pan-frying were tried as replacement to deep-frying. Baking cooked the empanadas evenly, but the dough did not have the same texture. It did not get flaky and crispy as it does with frying. It contained no leavening agents. Short of making a dough from scratch, which it was felt the target audience would not do, there is no way to make the dough flake up in baking. It was felt that baked empanadas would probably be acceptable to people not familiar with the traditional food, but not to the target audience. The pan-fried empanadas did not cook evenly and had doughy spots (it

was hard to cook the fold). They did flake up, but seemed just as greasy as the deep-fried empanadas (possibly because it wasn't as hot as a deep fryer gets). It was felt that there was no advantage to this cooking method over the deep-frying.

Review and revisions:

1. The taste panel suggested an even larger increase in the garlic and black pepper.
2. The increase in the vegetable content was too noticeable partly because red bell peppers were used (too sweet) and partly because the vegetables were not chopped finely enough. It was suggested that only green bell peppers be used and that the vegetables be very finely chopped by hand or with a food processor.
3. It was felt that the audience would not accept completely eliminating the Sazon seasoning, and it was suggested that at least ½ package be added back in.

Results:

Element	Revision 1	% Change	Revision 2	% Change
Calories	Reduced from 223 to 192	-14%	Reduced from 223 to 192	-14%
Total Fat	Reduced from 12g to 8 g	-33%	Reduced from 12g to 8 g	-33%
Saturated Fat	Reduced from 4g to 2 g	-50%	Reduced from 4g to 2 g	-50%
Calories From Fat	Reduced from 48% to 37.5%	-10.50%	Reduced from 48% to 37.5%	-10.50%
Cholesterol	Reduced from 27 mg to 17 mg	-37%	Reduced from 27 mg to 17 mg	-37%
Protein	No change	0%	no change	0%
Carbohydrate	Reduced from 21g to 17g	-19%	Reduced from 21g to 17g	-19%
Sodium	Reduced from 302 mg to 241 mg	-20.20%	Reduced from 302 mg to 251 mg	-16.90%

The revised recipes showed slight improvements in levels of calcium, iron, Vit A, Vit C, folate and fiber.

Comments: The modified recipe is healthier, but still fairly high in fat and sodium. Each empanada provides 13% of the DRI of fat, 12% of the DRI of saturated fat, and 10% of the DRI of sodium. As they are considered to be an appetizer, it is conceivable that two or three would be consumed before even getting to the main entree. The target audience should be encouraged to save empanadas for special events or to serve them with light (possibly vegetarian) entrees.