

# Tyramine-controlled Diet for People on MAO Inhibitors

**Source of Tyramine:** Protein-rich foods that have been dried, fermented, pickled, smoked, cured or bacterially contaminated (spoiled) are sources of tyramine. The tyramine content of older foods can increase with prolonged storage. Even fresh foods can ferment and should be consumed within 48 hours. Heat does not destroy tyramine.

## **What people need to know:**

The tyramine-controlled diet has a greater impact on the Maintenance and Healthy Solutions<sup>®</sup> diet than the all-product diet.

### **Avoid**

Aged cheeses  
Fermented soybean products  
(miso, some tofu)  
Fava or brad bean pods  
Over-ripe and spoiled fruits  
Banana peel  
Sourdough & homemade  
yeast leavened breads  
Brewers yeast  
Yeast extracts & meat extracts

### **Use in limited amounts**

Cultured dairy products  
(yogurt, sour cream)  
bananas, raisins, red plums,  
raspberries  
Chocolate and products made with  
chocolate (\*)  
Caffeine—limited to two 8-oz.  
servings tea, coffee and soda

(\*) Chocolate and caffeine do not contain tyramine but might aggravate symptoms of headache or hypertension in some people. The person's tolerance to chocolate must be established to allow for the use of the HMR<sup>®</sup> Chocolate Shakes.

(Note: People should check with a Registered Dietician for a complete list of restricted foods).

## **HMR product restrictions|**

The following products should not be used unless tolerance is established:

- Chocolate Shake products (\*)
- HMR 500 Chicken Soup (contains yeast extract)
- Lasagna with Meat Sauce (contains aged cheese)
- Chicken Pasta Parmesan (contains parmesan cheese)
- Mexican-Style Bean and Beef Enchiladas with Sauce (contains yeast extract)
- Vegetable Stew with Beef (contains yeast extract)
- Chicken Creole (contains yeast extract)
- Five-Bean Casserole (contains yeast extract)
- Savory Chicken (contains yeast extract)
- Mushroom Risotto (contains yeast extract)
- Cheese and Basil Ravioli with Tomato Sauce (contains aged cheese)
- Beef Pot Roast with Vegetables and Gravy (contains yeast extract)
- Beef Stroganoff with Noodles (contains yeast extract)
- Pasta Fagioli (contains yeast extract)

The following HMR products may be used in limited quantities (less than four times per week):

- Chicken with Barbeque Sauce with Rice and Beans (hickory smoked flavor in BBQ sauce—the product is not smoked)
- HMR BeneFit<sup>®</sup> Bar—chocolate coated peanut butter flavor

The following HMR products may be used without limitations:

- HMR Vanilla Shake products
- Turkey Chili with Beans
- Yogurt-coated HMR BeneFit Bars – nonfat yogurt powder in the coating, active yogurt cultures are not present
- HMR Multigrain Hot Cereal

## **Background Information:**

MAO inhibitors (monoamine oxidase inhibitor) are a class of anti-depressant medications. These drugs interact negatively with the protein tyramine. Tyramine is a component of many different foods and impacts brain chemicals after digestion. The degree of the food-drug interaction depends of the amount of tyramine that is ingested.

The food-drug interaction can have serious results, ranging from high blood pressure, nausea, vomiting, and palpitations, to severe headaches with possible intracranial hemorrhage and severe hypertensive crises. Eighty percent of all hypertensive crises and almost all fatalities have been associated with cheeses.

The type of diet used with patients on MAO inhibitors is a tyramine-controlled diet. Foods high in tyramine are to be avoided. Foods low in tyramine can be used with caution as long as the tyramine content does not exceed 5 mg. per day.