

— APPENDIX 2 —

SEQUENTIAL INCREMENTAL
DOSE CHALLENGE

INSTRUCTIONS

- ◆ Carefully follow the detailed instructions for *sequential incremental dose challenge* provided in Chapter 28.
- ◆ Eat each test food in column two in the quantities and frequency described in the *challenge phase*, Chapter 28.
- ◆ Record any reactions you experience in column three.
- ◆ If you didn't have any reactions after the length of time specified on the Information Sheet, place a check mark by the "Pass" and follow the instructions in that column.
- ◆ If you recorded a reaction, place a check mark by the "Fail" and follow the instructions in that column.
- ◆ Proceed *exactly as instructed*, and in the *specified sequence*, for each selected food category.
- ◆ You can test the *food category* (dairy products, grains, fruits) in any order you wish.
- ◆ If the specific food you wish to challenge is not listed, test as described for the same type of food and enter results under "Other foods" at the end of the appropriate food category in the table

Do not test any food that is suspected to have caused a severe or anaphylactic reaction in the past by this method. Any foods that might cause a potentially severe reaction, especially in children, should be challenged only under medical supervision in a suitably equipped facility.

TEST COMPONENT	TEST FOOD	REACTION	PASS	FAIL
MILK AND MILK PRODUCTS				
TEST 1 Casein	White hard cheese; e.g., mozzarella, Parmesan		Pass___ Not sensitive to casein proteins Proceed to Test 2	Fail___ Sensitive to casein proteins Proceed to Test 8
TEST 2 Casein Biogenic amines Annatto	Orange/yellow aged cheese, e.g., aged (old) cheddar		Pass___ Not sensitive to annatto or biogenic Proceed	Fail___ Sensitive to biogenic amines or annatto ^a Proceed
TEST 3 Casein whey	Lactaid [®] milk or Lacteez [®] milk (99% lactose-free)		Pass___ Not sensitive to whey or casein proteins Not sensitive to cow's milk proteins Proceed	Fail___ Sensitive to whey proteins, but not to casein proteins STOP HERE
TEST 4 Casein Whey lactose	Milk: Homogenized, fat-reduced, 2%, 1%, or skim		Pass___ Not lactose-intolerant Not sensitive to cow's milk proteins Proceed	Fail___ Lactose-intolerant Not sensitive to cow's milk proteins Proceed
TEST 5 Modified milk proteins Partially digested lactose	Yogurt (plain only)		Pass___ Not sensitive to milk Proceed	Fail___ Lactose intolerance confirmed STOP HERE
TEST 6 Curdled milk with minimum fermentation	Cottage cheese		Pass___ Not sensitive to whole milk or lactose Proceed	Fail___ Sensitive to a component of cottage cheese Retest lactose Retest whole milk STOP HERE

^a When you have a reaction, test each component (annatto [p. 461], biogenic amines [p. 454], histamine, and/or tyramine) separately.

TEST COMPONENT	TEST FOOD	REACTION	PASS	FAIL
MILK AND MILK PRODUCTS				
TEST 7 Complete milk in a complex manufactured product	Ice cream		Pass___ Not sensitive to milk Not lactose-intolerant Not sensitive to food additives Not sucrose intolerant	Fail___ <i>Suspect:</i> (1) Sucrose intolerance ^b (2) Sensitivity to food additives ^c
TEST 8a Whey (without casein) Lactose-free Test only if Test 1 for casein proteins is positive (failed Test 1)	Whey powder (contains whey but free from casein and milk solids) Lactose-free or treated with lactase enzyme (Lactaid™ drops)		Pass___ Not sensitive to whey proteins Proceed	Fail___ Sensitive to whey proteins STOP HERE
TEST 8b Whey with lactose	Complete whey powder		Pass___ Not lactose-intolerant	Fail___ Lactose-intolerant
YEAST				
<i>Saccharomyces</i> species	Debittered brewer's yeast		Pass___ Not sensitive to yeast	Fail___ Sensitive to yeast
GRAINS				
WHEAT				
TEST 1 Individual grain	Cream of wheat Puffed wheat Wheat flakes (cooked)		Pass___ Not sensitive to wheat Proceed	Fail___ Sensitive to wheat STOP HERE

^b Challenge sucrose as described under "Sugars."

^c Challenge food additives as described under "Food Additives."

TEST COMPONENT	TEST FOOD	REACTION	PASS	FAIL
GRAINS (continued)				
WHEAT (continued)				
TEST 2 Grain in a yeast-free baked product	Yeast-free soda bread Yeast-free flat bread Triscuit™ cracker		Pass___ Not sensitive to wheat Not sensitive to other ingredients in the product Proceed	Fail___ Sensitive to an ingredient in the product other than wheat Test other ingredients listed on the label of a manufactured food STOP HERE
TEST 3a White (wheat) flour without bleaching agent (contains yeast, but no benzoates)	White bread made with unbleached white (wheat) flour Use manufactured bread, or it can be made at home with unbleached white (wheat) flour		Pass___ Not sensitive to white (wheat) flour Proceed to Test 3b	Fail___ Sensitive to white (wheat) flour Sensitive to yeast if test for yeast (page 443) is positive Proceed to Wheat Test 4
TEST 3b White (wheat) flour with a bleaching agent (benzoate)	White bread or rolls made with “regular” bleached white wheat flour		Pass___ Not sensitive to white flour, yeast, or benzoates	Fail___ Sensitive to benzoates Confirm by testing cinnamon, which contains a high level of benzoate (see page 4610)
TEST 4 Whole grain in a baked product with yeast	100% whole-wheat bread		Pass___ Not sensitive to wheat Not sensitive to yeast	Fail___ Possibly sensitive to proteins in wheat bran Sensitive to yeast if test for yeast (page 443) is positive

TEST COMPONENT	TEST FOOD	REACTION	PASS	FAIL
GRAINS (continued)				
RYE				
Single grain	Rye flakes (cooked)		Pass___ Not sensitive to rye Proceed	Fail___ Sensitive to rye STOP HERE
Whole grain in a yeast-free baked product	100% rye cracker: Ryvita™ (wheat-free) or Wasa Light™		Pass___ Not sensitive to rye Not sensitive to other ingredients in the product Proceed	Fail___ Possibly sensitive to an ingredient in the product Product label may identify possible reactive ingredients STOP HERE
OATS	*****	*****	*****	*****
Single grain	Oatmeal porridge made from natural oats (e.g., Traditional Quaker™ oatmeal)		Pass___	Fail___
Grain in a baked product	Traditional Scottish oat cake without wheat, made with oat flour		Pass___	Fail___
BARLEY				
Single grain	Barley flakes cooked as a porridge <i>Or</i> Pearl barley added to a meat-based stew		Pass___ Pass___	Fail___ Fail___
Grain in a baked product	Barley bread with only tolerated ingredients		Pass___	Fail___

***** From this point on, "Pass" means the food, or component part of food, being tested is tolerated; "Fail" means that it is NOT tolerated.

TEST COMPONENT	TEST FOOD	REACTION	PASS	FAIL
GRAINS (continued)				
CORN				
TEST 1 Single grain	Corn on the cob <i>Or</i> Corn niblets		Pass___ Pass___	Fail___ Fail___
TEST 2 Processed whole grain	Popcorn		Pass___	Fail___
TEST 3 Cornmeal	Cornmeal bread or muffins with tolerated ingredients		Pass___	Fail___
TEST 4 Cornstarch or corn flour	Used as a thickener in a product with tolerated ingredients		Pass___	Fail___
TEST 5 Corn oil	Added to a recipe with tolerated ingredients		Pass___	Fail___
TEST 6 Corn syrup	Add to recipe with tolerated ingredients		Pass___	Fail___
SOY				
TEST 1 Tofu	Extra-firm tofu, cooked		Pass___	Fail___
TEST 2 Soy beverage ^d	Boiled		Pass___	Fail___
	Uncooked		Pass___	Fail___
TEST 3 Fermented soy product without wheat	Tamari sauce		Pass___	Fail___

^d Most commercial soy beverages are uncooked. Many people react to *raw* soy beverages, but tolerate them cooked.

TEST COMPONENT	TEST FOOD	REACTION	PASS	FAIL
FRUIT^e				
ORANGE				
Orange juice, cooked	Pasteurized orange juice <i>Or</i> Diluted frozen orange juice, boiled and cooled		Pass___ Pass___	Fail___ Fail___
Orange juice	Fresh squeezed <i>Or</i> Reconstituted from frozen concentrate		Pass___ Pass___	Fail___ Fail___
Orange, cooked	Canned mandarin orange <i>Or</i> Fresh orange, cooked in microwave or oven		Pass___ Pass___	Fail___ Fail___
Raw orange	Fresh mandarin		Pass___	Fail___
	Fresh navel		Pass___	Fail___
GRAPEFRUIT				
Grapefruit juice, cooked	Pasteurized grapefruit juice <i>Or</i> Fresh or frozen grapefruit juice, boiled and cooled		Pass___ Pass___	Fail___ Fail___
Grapefruit juice	Fresh squeezed <i>Or</i> Reconstituted from frozen concentrate		Pass___ Pass___	Fail___ Fail___

^e Canned fruit is cooked. Dried fruit is sold in the raw state.

TEST COMPONENT	TEST FOOD	REACTION	PASS	FAIL
FRUIT^e				
GRAPEFRUIT (continued)				
Grapefruit, cooked	Canned grapefruit segments <i>Or</i> Grapefruit cooked in microwave or oven		Pass___ Pass___	Fail___ Fail___
Raw grapefruit	Fresh white grapefruit		Pass___	Fail___
	Fresh pink grapefruit		Pass___	Fail___
GRAPES AND RAISINS^f				
Fresh grapes	Grapes, washed		Pass___ Not sensitive to grapes Not sensitive to sulfite	Fail___ Sensitive to grapes and/or sulfite Test sulfite separately
Raisins without sulfite	Nonsulfited raisins		Pass___ Not sensitive to raisins	Fail___ Sensitive to raisins and probably grapes
Raisins with sulfite	Regular (sulfited) raisins		Pass___ Not sensitive to raisins Not sensitive to sulfite	Fail___ If nonsulfited raisins are tolerated, sensitive to sulfite
APPLE				
Apple juice, cooked	Pasteurized apple juice <i>Or</i> Fresh or frozen apple juice, boiled and cooled		Pass___ Pass___	Fail___ Fail___

^f Do *not* challenge grapes if sulfite sensitivity is suspected, until sulfite is proven safe by challenge.

TEST COMPONENT	TEST FOOD	REACTION	PASS	FAIL
FRUIT^e (continued)				
APPLE (continued)				
Apple juice	Unpasteurized pure juice <i>Or</i> Reconstituted from frozen concentrate		Pass___	Fail___
Apple, cooked	Fresh apple, peeled, cored, and cooked <i>Or</i> Applesauce without added sugar		Pass___	Fail___
Fresh apple	Golden Delicious		Pass___	Fail___
	MacIntosh		Pass___	Fail___
	Granny Smith		Pass___	Fail___
	Other varieties (specify type)		Pass___	Fail___
OTHER FRUITS				
Apricot	Cooked		Pass___	Fail___
	Raw		Pass___	Fail___
Banana	Cooked		Pass___	Fail___
	Raw		Pass___	Fail___
Kiwi	Cooked		Pass___	Fail___
	Raw		Pass___	Fail___
Peach	Cooked		Pass___	Fail___
	Raw		Pass___	Fail___

TEST COMPONENT	TEST FOOD	REACTION	PASS	FAIL
FRUIT^e (continued)				
OTHER FRUITS (continued)				
Pear	Cooked		Pass___	Fail___
	Raw		Pass___	Fail___
Pineapple	Cooked		Pass___	Fail___
	Raw		Pass___	Fail___
Nectarine	Cooked		Pass___	Fail___
	Raw		Pass___	Fail___
Other fruits (specify type)				

TEST COMPONENT	TEST FOOD	REACTION	PASS	FAIL
VEGETABLES				
TOMATO				
Tomato juice, cooked	Canned or boiled		Pass___	Fail___
Tomato juice, raw	Commercial or freshly made in blender		Pass___	Fail___
Tomato, cooked	Canned or cooked slices		Pass___	Fail___
Tomato, raw	Various varieties (specify types)		Pass___	Fail___
Tomato ketchup (catsup)	Commercial brand		Pass___	Fail___ If tomato is tolerated, suspect vinegar. Confirm by testing vinegar separately (page 453)
SPINACH				
Cooked	Fresh or frozen spinach leaves, boiled		Pass___	Fail___
Raw	Fresh spinach leaves, eaten as a salad		Pass___	Fail___
CARROT				
Carrot juice, cooked	Juice extracted from raw carrots, boiled		Pass___	Fail___

TEST COMPONENT	TEST FOOD	REACTION	PASS	FAIL
VEGETABLES (continued)				
CARROT (continued)				
Carrot juice	Juice from raw carrots		Pass___	Fail___
Carrot, cooked	Carrots, sliced and boiled		Pass___	Fail___
Carrot, raw	Carrot sticks, fresh		Pass___	Fail___
OTHER VEGETABLES				
Celery	Cooked		Pass___	Fail___
	Raw		Pass___	Fail___
Cucumber	Cooked		Pass___	Fail___
	Raw		Pass___	Fail___
Lettuce	Cooked		Pass___	Fail___
	Raw		Pass___	Fail___
Radish	Cooked		Pass___	Fail___
	Raw		Pass___	Fail___
Other vegetables (specify types)			Pass___	Fail___

TEST COMPONENT	TEST FOOD	REACTION	PASS	FAIL
SPICES				
Cinnamon			Pass__	Fail__
Anise			Pass__	Fail__
Nutmeg			Pass__	Fail__
Cayenne			Pass__	Fail__
Curry spice mixture			Pass__	Fail__
Chili spice mixture			Pass__	Fail__
Other spices (specify types)			Pass__	Fail__
VINEGAR				
Distilled vinegar	White vinegar		Pass__	Fail__
Wine components	Wine vinegar		Pass__	Fail__
Fermented rice products	Rice vinegar		Pass__	Fail__
Additional ingredients	Balsamic vinegar		Pass__	Fail__
Raw vegetables in vinegar	Dill pickles		Pass__	Fail__
	Other pickles and relishes (specify types)		Pass__	Fail__

TEST COMPONENT	TEST FOOD	REACTION	PASS	FAIL
ALCOHOL				
Distilled alcohol	Vodka		Pass___	Fail___
	<i>Or</i> Gin		Pass___	Fail___
	<i>Or</i> Tequila		Pass___	Fail___
	<i>Or</i> White rum		Pass___	Fail___
Histamine in wine	White wine		Pass___	Fail___
Tyramine in wine	Red wine		Pass___	Fail___
Fermented grain products	Beer		Pass___	Fail___
	<i>Or</i> Ale		Pass___	Fail___
	<i>Or</i> Lager		Pass___	Fail___
Fermented fruit products	Apple cider		Pass___	Fail___
Fermented beverage without alcohol (histamine)	De-alcoholized wine		Pass___	Fail___
Fermented beverage without alcohol (grain products)	De-alcoholized beer or equivalent		Pass___	Fail___
TEA				
Herbal tea			Pass___	Fail___
Green tea			Pass___	Fail___
Decaffeinated regular tea			Pass___	Fail___
Regular tea			Pass___	Fail___

TEST COMPONENT	TEST FOOD	REACTION	PASS	FAIL
COFFEE				
Decaffeinated coffee			Pass___	Fail___
Regular coffee			Pass___	Fail___
Flavored coffees (specify types)			Pass___	Fail___
SUGARS				
Maple sugar or syrup			Pass___	Fail___
Cane sugar			Pass___	Fail___
Beet sugar			Pass___	Fail___
Corn syrup			Pass___	Fail___
Date sugar			Pass___	Fail___
Fructose			Pass___	Fail___
Honey			Pass___	Fail___
CHOCOLATE				
Cocoa butter	Dark, bitter, baker's chocolate sweetened as described in Chapter 28 (page 379)		Pass___	Fail___
Cocoa butter with milk	Dark baker's chocolate with milk and sweetener added		Pass___	Fail___
Complete chocolate confectionery	Purchased chocolate		Pass___	Fail___

TEST COMPONENT	TEST FOOD	REACTION	PASS	FAIL
LEGUMES				
Peanut	Peanut, roasted or boiled		Pass__	Fail__
	Peanut, raw		Pass__	Fail__
Whole beans, cooked (many raw beans are toxic)	Green (French, string, runner) bean		Pass__	Fail__
	Yellow wax bean		Pass__	Fail__
	Broad bean (fava)		Pass__	Fail__
	Lima bean		Pass__	Fail__
Dried beans	Navy		Pass__	Fail__
	Pinto		Pass__	Fail__
	Kidney		Pass__	Fail__
	Black-eyed peas		Pass__	Fail__
	Lentils		Pass__	Fail__
	Split peas		Pass__	Fail__
	Others (specify types)		Pass__	Fail__
Bean sprouts	Mung bean		Pass__	Fail__
	Alfalfa		Pass__	Fail__
	Others (specify types)		Pass__	Fail__
Green peas	Cooked		Pass__	Fail__
	Raw		Pass__	Fail__

TEST COMPONENT	TEST FOOD	REACTION	PASS	FAIL
NUTS				
Whole nuts	Almond		Pass__	Fail__
	Brazil		Pass__	Fail__
	Cashew		Pass__	Fail__
	Chestnut		Pass__	Fail__
	Hazelnut (filbert)		Pass__	Fail__
	Macadamia		Pass__	Fail__
	Pine nut		Pass__	Fail__
	Pistachio <i>Or</i> Pecan		Pass__ Pass__	Fail__ Fail__
	Walnut		Pass__	Fail__
	Coconut		Pass__	Fail__
Other nuts (specify types)		Pass__	Fail__	
SEEDS				
Whole seeds, roasted	Sesame		Pass__	Fail__
	Sunflower		Pass__	Fail__
	Flax		Pass__	Fail__
	Melon		Pass__	Fail__
	Poppy		Pass__	Fail__
	Pumpkin		Pass__	Fail__
	Other seeds (specify types)		Pass__	Fail__

TEST COMPONENT	TEST FOOD	REACTION	PASS	FAIL
MEAT AND POULTRY				
Meat	Beef		Pass__	Fail__
	Pork		Pass__	Fail__
	Lamb		Pass__	Fail__
	Other meats (specify types)		Pass__	Fail__
Poultry	Chicken		Pass__	Fail__
	Turkey		Pass__	Fail__
	Duck		Pass__	Fail__
	Other poultry (specify types)		Pass__	Fail__
Processed meats ("deli meats")	Pepperoni		Pass__	Fail__
	Salami		Pass__	Fail__
	Bologna		Pass__	Fail__
	Cured bacon		Pass__	Fail__
	Smoked bacon		Pass__	Fail__
	Cured ham		Pass__	Fail__
	Frankfurter		Pass__	Fail__
	Wiener		Pass__	Fail__

TEST COMPONENT	TEST FOOD	REACTION	PASS	FAIL
FISH				
Fresh or frozen, cooked	Cod		Pass___	Fail___
	Sole		Pass___	Fail___
	Red snapper		Pass___	Fail___
	Salmon		Pass___	Fail___
	Halibut		Pass___	Fail___
	Perch		Pass___	Fail___
	Others (specify types)		Pass___	Fail___
Canned fish	Tuna		Pass___	Fail___
	Salmon		Pass___	Fail___
	Sardines		Pass___	Fail___
	Others (specify types)		Pass___	Fail___
SHELLFISH				
Cooked	Lobster		Pass___	Fail___
	Prawn		Pass___	Fail___
	Shrimp		Pass___	Fail___
	Crab		Pass___	Fail___
	Others (specify types)		Pass___	Fail___
Raw	For example, as eaten in sushi (specify types)		Pass___	Fail___

TEST COMPONENT	TEST FOOD	REACTION	PASS	FAIL
FOOD ADDITIVES				
Tartrazine	TEST 1 Cheese without tartrazine: natural orange/ yellow cheddar cheese		Pass___ Not sensitive to cow's milk cheese Proceed to Test 2	Fail___ Sensitive to cow's milk cheese Choose another similar food and retest
	TEST 2 Similar cheese containing tartrazine: processed cheese food or processed cheese slides (label will read "tartrazine" or "artificial food color)		Pass___ Not sensitive to tartrazine	Fail___ Sensitive to tartrazine
Sulfites	TEST 1 Dried fruit without natural color—all fruits appear the same beige/brown. Usually available in health food stores. Label will not have the word "sulfite" in the ingredient list. Example: dried apricots		Pass___ Not sensitive to test fruit (apricot) Proceed to Test 2	Fail___ Sensitive to test fruit (apricot) Choose another fruit and retest
	TEST 2 The same dried fruit treated with sulfites—the fruit will retain its natural color. "Sulfite" will appear on the label. Purchase from a regular grocery store or supermarket. Example: dried apricots		Pass___ Not sensitive to sulfites	Fail___ Sensitive to sulfites

TEST COMPONENT	TEST FOOD	REACTION	PASS	FAIL
FOOD ADDITIVES (continued)				
MSG	Available as a powder to be added to a carrier food that is known to be tolerated		Pass___ Not sensitive to MSG	Fail___ Sensitive to MSG
Benzoates	Cinnamon (see page 453)		Pass___ Not sensitive to benzoates	Fail___ Sensitive to benzoates
Annatto	TEST 1 Cheese without annatto: white or natural (cream-colored). Choose a cheese that is available in both an orange/yellow color and a natural/cream color, for example, cheddar.		Pass___ Not sensitive to cow's milk cheese Proceed to Test 2	Fail___ Sensitive to cow's milk cheese Choose another similar food and retest
	TEST 2 The same type of cheese with annatto added, such as orange/yellow cheddar		Pass___ Not sensitive to annatto	Fail___ Sensitive to annatto
OTHER FOODS				
	Specify types:		Pass___	Fail___

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