



Nutrition



OBJECTIVES

**Insulin response
in PWS**

**Nutritional
recommendations
for PWS**

**Components
of a healthy
diet**

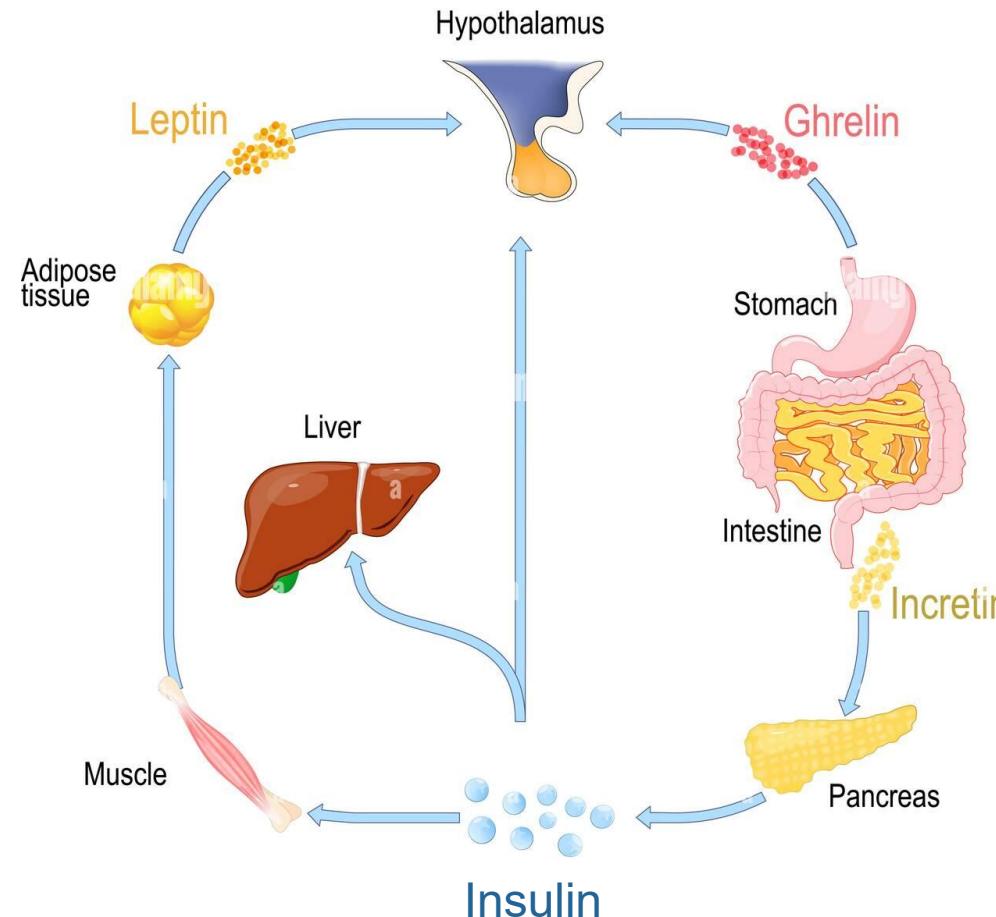
**How to create
a meal plan**

**Preparing
and
portioning
meals**



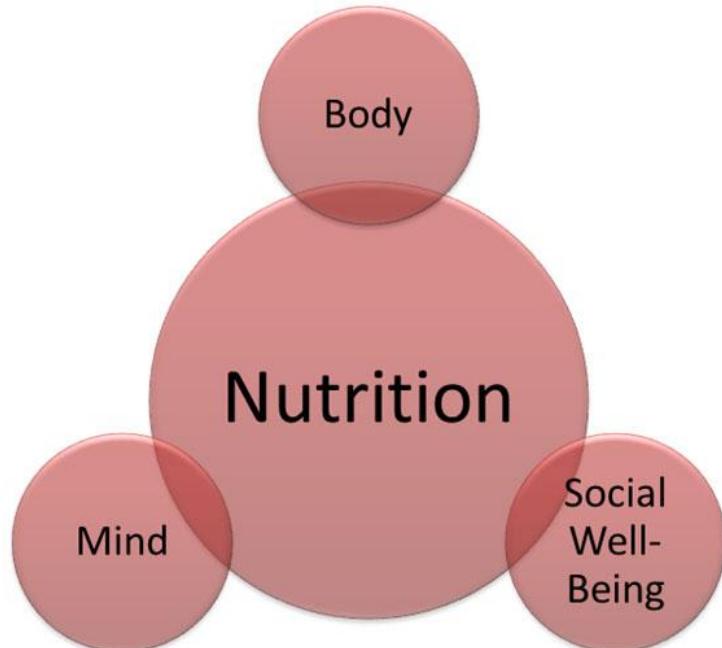
INSULIN RESPONSE IN PRADER-WILLI SYNDROME

Hunger hormones





NUTRITIONAL RECOMMENDATIONS



800 – 1200 Calories / day as recommended by RD or Physician

- 800 - 1000 calories is typically for weight loss
- 1000 – 1200 calories is typically for weight maintenance
- There are a few cases of higher caloric needs



NUTRITION



- Caloric / Macro intake should be calculated by a Registered Dietitian in conjunction with a physician
- Menus should be approved by the RD with input from the individuals
- All substitutions and reductions should be approved by the RD when possible



MANAGING WEIGHT

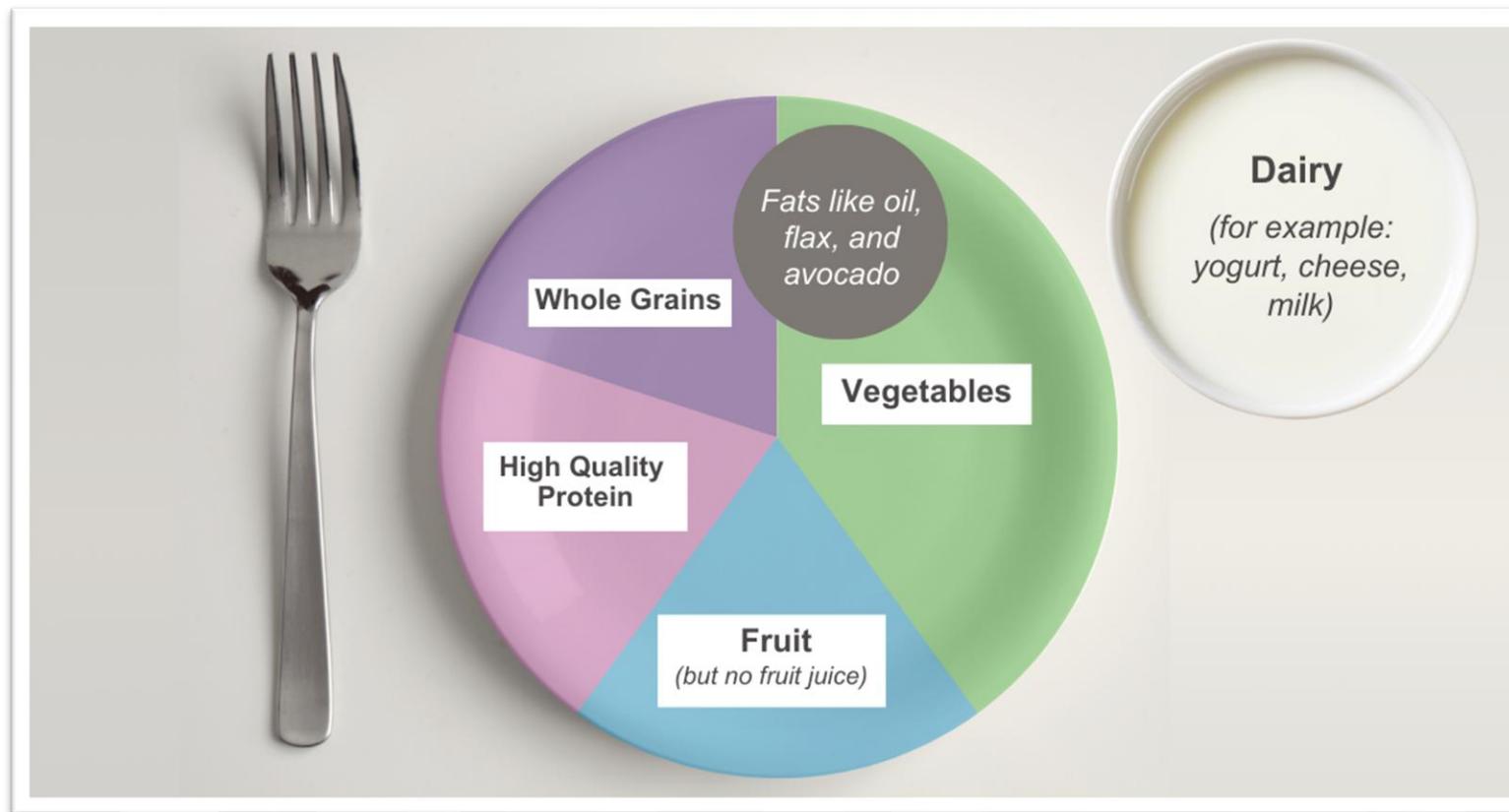


NUTRITION

General Healthy Portioning vs PWS portioning

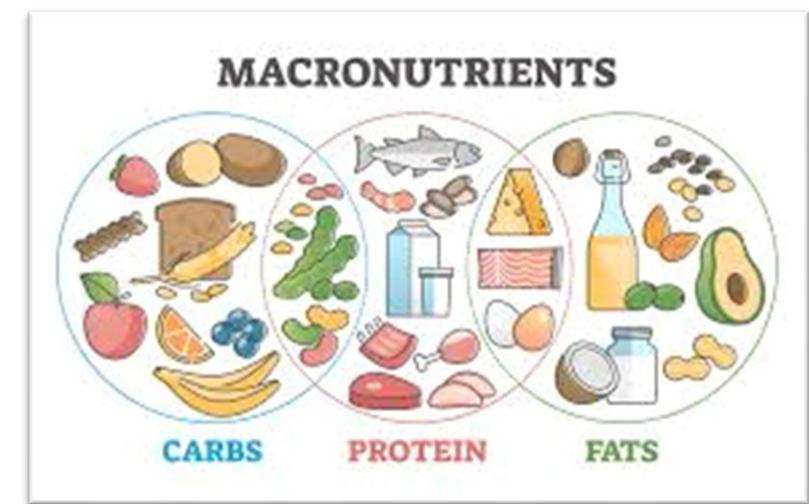
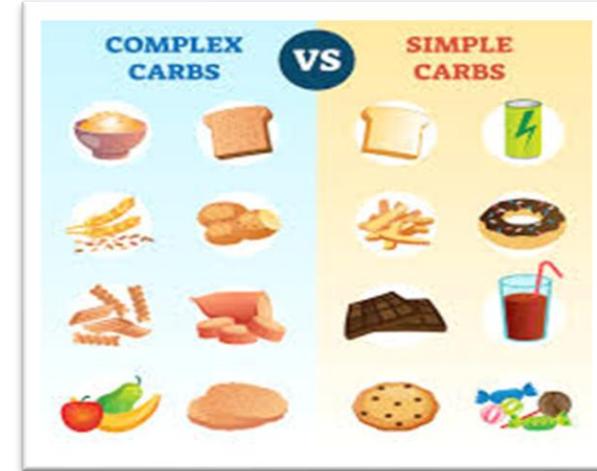


Prader-Willi Plate



KEY TO GOOD NUTRITION

- The key to good nutrition is ensuring meals and snacks are well-balanced
 - Use complex carbs vs. simple carbs
 - Pair carbs with protein or a healthy fat. No Carb only snacks



Components of a well-balanced diet



- Vegetables: Loaded with vitamins and minerals
- Carbohydrates such as bread, starchy vegetables and fruit are used by the body for energy and are a good source of vitamins and minerals.
- Protein, found in meat, eggs, dried beans, peas and non-fat dairy products, is used by the body to build new tissue.
- Fats such as margarine, mayonnaise and salad dressings are concentrated sources of calories and should be limited and paired with a protein or carb not eaten alone.



HEALTHY MEAL BUILDING

Pick one (or more) from each category to build meals.

Vegetables (non-starchy) – carrots, cucumbers, green beans, broccoli, cauliflower, spinach, lettuce, tomatoes, celery, zucchini, yellow squash, asparagus, bell peppers, onions, Brussel sprouts, artichoke, cabbage, kale, snap peas, Okra, collards, Bok choy, eggplant, spaghetti squash, Swiss chard, turnips

Protein – Beef, pork, chicken, turkey, salmon, tuna, white fish, shrimp, crab, lobster, scallops, clams, eggs, Greek yogurt, nuts, seeds, cottage cheese, duck, soy, tofu, tempeh, lamb, goat

Carbohydrates – WHOLE grain bread, WHOLE grain pasta, quinoa, brown rice, wild rice, barley, oatmeal, black beans, kidney beans, pinto beans, white beans, lima beans, chickpeas, green peas, hummus, black-eyed peas, edamame, lentils, sweet potato, potato, whole grain couscous, farro, millet, pumpkin, butternut squash, acorn squash, popcorn, buckwheat, amaranth

- Ensure there is a source of Fat at each meal as well, preferably Unsaturated Fat (oils, nuts, seeds, avocado, fish, etc.)
- Fruit can be included with the meal as well, but only 2 servings per day of fruit. If using canned fruits, make sure there is no added sugar or syrup.
- No carb only snacks. If carb is included at a snack, ensure there is a protein and/or fat with it.



Carbohydrates

Breads
Rices
Couscous
Bran
Potatoes
Pasta
Oats
Cream of Wheat
Corn
English Muffin
Pancakes
Whole Wheat/
Whole Grains
Squash
Pumpkin
Berries
Fruits
Sugars

Proteins

Beans
Sprouts
Grains
Quinoa
Most
Yogurts
Skim
Milk
Peas

Chicken
Turkey
Egg Whites
Fish
Buffalo
Bison
Whey Protein
Turkey Bacon
Lean Beef
Low/Non-fat
Cottage Cheese
Low/Non-fat
Greek Yogurt

Fats

Eggs
Salmon
Bacon
Chia Seeds
Cottage Cheese
Whole Fat Milk
Duck
Whole-fat
Yogurt

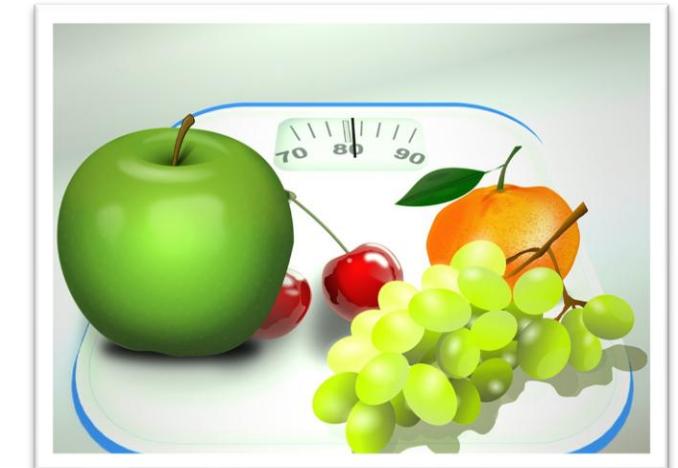
Avocado
Nut Butters
Egg Yolks
Nuts
Oils
Olives
Flaxseed



NUTRITION



- Portioning Food
- Weigh and measure everything, every time





SAMPLE MENU

Breakfast	Calorie	Lunch	Calorie	Dinner	Calorie	
Hard boiled egg with toast		Ham and Cheese Sandwich		Baked Fish with potato		
8oz decaf coffee or tea	0	Crystal light	0	Crystal light	0	
4 oz skim milk	45	3oz ham sandwich meat	105	4 oz baked fish with lemon pepper	140	
1 splenda packet	0	1 TBSP Fat free Mayo (best if made with avocado oil) or mustard	10	1 small baked potato with 2 sprays butter	80	
2 slice Healthy Life Whole Grain toast	70	1 slice Healthy Life Whole Grain toast (65)	65	1 cup cooked green beans	80	
1 hard boiled egg	70	1 cup lettuce		2 TSP Mrs. Dash seasoning	0	
1 tsp everything bagel seasoning		1 cup mixed raw veggies	25			
1 medium apple sliced	95	2 tsp low fat salad dressing	15			
1 TBSP cinnamon		1 Dole fruit cup (no sugar added)	70			
1 spray of I can't believe it's not butter (on toast)	0					
Sugar-free, Zero calorie drink		1 rice cake (35) with 1 TBSP PB2 (30)	65	Snack 1 cup popcorn and 1 stick light string cheese	75	
Total	280		355		375	1010



SAMPLE MENU

Breakfast	Calorie	Lunch	Calorie	Dinner	Calorie
Waffle		PBJ sandwich		Chicken Sandwich with fries	
8oz decaf coffee or tea	0	Crystal Light	0	4 oz skim milk	45
4 oz skim milk	45	2 slice Healthy Life Whole Grain bread	130	4 oz baked, boneless, skinless chicken breast	110
1 splenda packet	0	2 TBSP PB2 (made thin side)	60	1 light hamburger bun	80
1 frozen waffle (great value) (90each)	90	1 TBSP no sugar added Jelly (25)	25	1 cup Lettuce and veggies with dressing	35
2 Jimmy Dean breakfast sausage links (33 each)	66	1 light string cheese (45 cal/stick)	45	1 TBSP sugar-free Ketchup	10
1 TBSP light syrup (25 each)	25	1 dill pickle spears	5	2 oz sweet potato fries - baked Great value	200
		1 cup mixed raw veggies sprinkle with Mrs Dash	25	1 TBSP BBQ sauce	10
1/2 apple sliced with TBSP PB2	75	dole fruit cup	60	Snack 1 cup popcorn and 1 stick light string cheese	75
Total	301		350		1210
					565



SPECIAL OCCASIONS

Going out to eat





CELEBRATIONS





IN CONCLUSION

When we look at weight management and health, we need to look at:

Meal Planning – doesn't have to be complicated

Portion control

Well balanced

Make room for special events

Daily exercise / physical activity

Make it fun

Make it routine



Open Discussion

Q & A



RESOURCES

PWSA | USA Medical Alert booklet



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