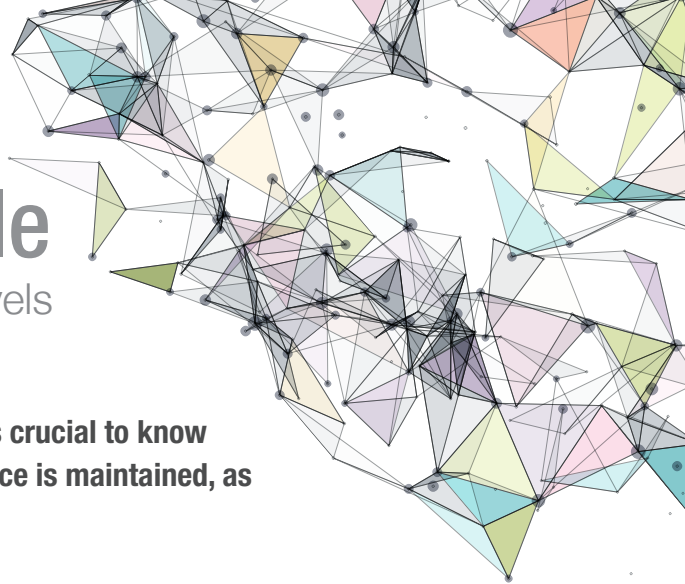


The PRAL Table

a clinical guide for assessing dietary acid levels



All foods have an acidic or alkalisng effect in the body, but it is crucial to know whether the diet is more acidic or alkaline so that a daily balance is maintained, as latent acidosis is linked to chronic disease and ill health.

To understand the acid/alkaline nature of foods, the USDA (United States Department of Agriculture) developed a formula that calculates the acidifying effects of food when eaten, according to their levels of alkalisng minerals and acidic producing proteins.

Based on this formula, an easy reference table was produced that provides the potential renal acid load (PRAL) of many foods—the PRAL Table. By using the PRAL Table, it is possible to estimate whether the diet is overly acidic or more alkaline in nature, or in balance.

Many scientific studies have validated the accuracy and usefulness of the PRAL Table in estimating the acidic load of any given diet.

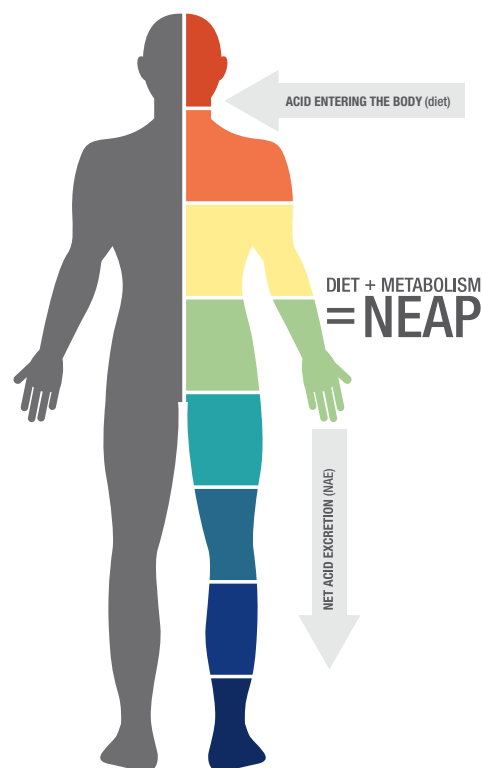
The PRAL provides a unique tool for practitioners and patients to analyse potential dietary acid loads and take the appropriate steps to include more alkalisng foods and supplements, if necessary. It is not a diet but a guide to the potential acid/alkaline balance of the diet.

The effects of an acidic diet

The Standard Australian Diet (SAD) produces an average of more than 100 mEq/day of acid but our bodies can only excrete approx. 40-60mEq/per day of acid. The kidneys process the majority of this acid load, which is why we refer to foods as having a potential renal acid load (PRAL).

Our net endogenous acid production, or NEAP, is made up of the foods we eat plus our metabolism. If we are eating a highly acidic diet, it will increase the NEAP and put an extra load on our acid buffering systems and the ability of our kidneys to excrete the acid.

The potential effect of a long-term imbalance (acid in vs acid out) is a state of latent acidosis or chronic mild metabolic acidosis, which, as stated earlier, has been linked to poor health and chronic disease.



ALKALINE FOODS (- PRAL values per 100g)

LOW MEDIUM HIGH

Vegetables

Artichokes	- 3.2	Cauliflower	- 4.0	Gherkin, pickled	- 1.6	Potato	- 4.0
Asparagus	- 0.4	Chicory	- 2.0	Green beans	- 3.1	Pumpkin	- 3.8
Beets	- 4.9	Cucumber	- 0.8	Leeks	- 1.8	Radish, red	- 4.4
Broccoli	- 4.0	Edamame	- 0.5	Lettuce, average	- 2.0	Sauerkraut	- 3.0
Cabbage	- 2.8	Eggplant	- 3.4	Mushrooms	- 1.4	Tomato	- 3.1
Capsicum, green	- 1.4	Frozen mixed vegetable	- 2.8	Onions	- 1.5	Zucchini	- 4.6
Carrot	- 5.7	Garlic	- 1.7				
Artichokes, Jerusalem	- 5.7	Chives	- 5.3	Ginger, fresh	- 7.9	Rocket (Arugula)	- 7.8
Avocado	- 8.2	Collards	- 5.7	Kale	- 7.8	Rutabaga	- 5.0
Beetroot	- 5.8	Dandelion greens	- 7.9	Kohlrabi	- 5.5	Sweet Potato	- 6.5
Brussel sprouts	- 5.5	Endive	- 6.0	Mustard Greens	- 6.8	Watercress	- 5.7
Celery	- 5.2	Fennel	- 7.9	Parsnips	- 5.8		
Chard	- 12.2	Spinach	- 14.0				

Oriental Vegetables

Maitake	- 0.8	Shitake	- 1.7	Spirulina	- 2.7	Wakame	- 1.3
Nori	- 3.4						
Bamboo shoots	- 7.9	Pak choy	- 5.1				

Fruits

Apple (average)	- 2.2	Honeydew melon	- 4.4	Orange	- 2.8	Plums	- 2.6
Apricot	- 4.3	Lemon	- 2.6	Papaya	- 4.0	Pomegranate	- 3.2
Blackberries	- 2.8	Lime	- 1.7	Peach	- 3.1	Raspberries	- 2.4
Blueberry, fresh	- 1.2	Mango	- 3.0	Pear	- 2.1	Strawberries	- 2.5
Grapes	- 3.9	Mulberries	- 2.9	Pineapple	- 2.2	Tomato	- 3.1
Grapefruit	- 3.5	Nectarine	- 3.1				
Avocado	- 8.2	Currants	- 6.5	Fruit straps	- 5.9	Kiwi fruit	- 5.6
Banana	- 5.5						
Banana chips, dehydrated	- 10.2	Dates - medjool	- 13.6	Raisins	- 14.4		

Vegetarian Protein

Chestnuts, water -tinned	- 1.5	Hazelnuts	- 3.1	Soy beans, green, raw	- 3.7		
Chestnuts, European raw	- 8.9						
Pumpkin seeds	- 14.3						

Spices & Seasonings

Garlic, fresh	- 2.6	Salt	- 0.5				
Basil, fresh	- 6.5	Cocoa powder	- 9.8	Coriander, fresh	- 9.5	Ginger, fresh	- 7.9
Chilli, fresh	- 5.3						
Cumin seeds, dried	- 32	Dill, fresh	- 16	Parsley, fresh	- 11	Rosemary, fresh	- 16.4
Chilli powder	- 31.4	Ginger, dried powder	- 24.5	Parsley, dried	- 52		

Alcohol

Beer	- 0.2						
------	-------	--	--	--	--	--	--

Drinks

Apple juice	- 2.2	Coffee, black	- 1.4	Lemon juice	- 1.9	Pineapple juice	- 2.7
Apricot nectar	- 2.1	Grapefruit juice, pink	- 3.0	Orange juice	- 3.6	Vegetable juice (average)	- 3.8
Coconut milk, canned	- 1.6	Herbal tea (average)	- 0.2	Tomato juice	- 3.4	Water	0
Coconut water	- 5.12						

Fats & Oil

Coconut oil	0	Fish oil	0	Flaxseed oil	- 0.08		
-------------	---	----------	---	--------------	--------	--	--

Other

Mustard	- 1.14	Tomato Sauce	- 2.08	Goats milk	- 0.54		
Chocolate dark 70-80%	- 6.68						

ACID-FORMING FOODS (+ PRAL values per 100g)

HIGH MEDIUM LOW

Animal Protein

Clams	+ 12.55	Lobster/crayfish	+ 10.35	Rabbit	+ 19	Scallops	+ 13.3
Corned beef	+ 13.2	Luncheon meats (average)	+ 10.5	Salami	+ 11.6	Trout	+ 10.8
Egg yolk (chicken)	+ 23.4	Mussels	+ 15.3	Salmon	+ 13.5	Tuna	+ 14.9
Goose	+ 13	Organ meats (average)	+ 15	Sardines	+ 13.3	Venison	+ 15.4
Liver (beef)	+ 15	Prawns	+ 17.5				
Beef	+ 7.8	Duck	+ 8.4	Lamb	+ 7.6	Shrimp	+ 7.6
Carp	+ 8.0	Eggs whole (chicken)	+ 8.2	Pork	+ 7.6	Turkey	+ 9.9
Chicken	+ 8.7	Fish (average)	+ 8.0	Sausages (average)	+ 8.5	Veal	+ 9.0
Cod	+ 7.1	Frankfurts	+ 6.8				
Egg white (chicken)	+ 1.1	Oysters (raw)	+ 1.9				

Grains, Breads & Pasta

Oats (rolled)	+ 12.5	Rice (brown)	+ 12.5				
Amaranth	+ 7.5	Flour (average)	+ 7.5	Rice cakes	+ 7.7	Spaghetti, wholemeal	+ 7.3
Bread sourdough	+ 6	Macaroni	+ 6.1	Rusk	+ 5.9	Spelt	+ 8.8
Bread Pita wholewheat	+ 5.9	Millet	+ 8.6	Spaghetti	+ 6.5	Wheat	+ 8.2
Cornflakes	+ 6	Pasta	+ 6.5				
Barley	+ 5	Corn cob cooked	+ 0.3	Pumpnickel	+ 4.2	Rice, white	+ 1.7
Bread (average)	+ 3.8	Corn/cornstarch	+ 3.8	Quinoa	+ 2.4	Rye	+ 4.4
Buckwheat	+ 3.7	Pasta, gluten free rice base	+ 4.41	Rice, wild cooked	+ 2.0		

Beans & Legumes

Lima beans	+ 6.16	White beans	+ 5.64				
Chick peas	+ 2.5	Kidney beans	+ 0.7	Lentils	+ 3.5	Pinto Beans	+ 1.25
Green peas	+ 1.2						

Nuts & Butters

Tahini	+ 18.7						
Brazil nuts	+ 8.1	Peanut butter (processed)	+ 7.35	Peanuts	+ 8.3	Walnuts	+ 6.8
Cashews	+ 8.9						
Pecans	+ 2.1	Pistachios	+ 2.0	Almonds, raw	+ 3.1		

Dairy

Cheese Blue vein	+ 12.0	Cheese Feta	+ 11.2	Cheese hard (average)	+ 18.6	Cheese, low fat cheddar	+ 26.4
Cheese Brie	+ 11.2	Cheese Quark	+ 11.1	Cheese, high protein (average)	+ 23.6	Cheese, Parmesan	+ 34.2
Cheese, Cottage	+ 8.7	Cheese low protein (average)	+ 8	Cheese ricotta	+ 6.2		
Butter	+ 0.6	Cream	+ 1.2	Milk, cows	+ 1.1	Yoghurt, cows	+ 1.5
Buttermilk	+ 0.5	Ice cream	+ 0.6	Sour cream	+ 1.2		

Vegetables

Alfalfa sprout	+ 1.7	Peas, frozen (cooked)	+ 2.2				
----------------	-------	-----------------------	-------	--	--	--	--

Alcohol

Distilled spirits	+ 0.11	Wine	+ 0.03				
-------------------	--------	------	--------	--	--	--	--

Drinks

Carbonated drinks	+ 0.05	Coca cola	+ 0.4	Soy milk	+ 1.3		
-------------------	--------	-----------	-------	----------	-------	--	--

Vegetarian Protein

Chia	+ 14.4	Sunflower Seeds dried	+ 11.6				
Tempeh	+ 6.6						
Tofu	+ 1.5						

Sweets & Sugars

Crackers, wheat low fat	+ 5.84						
Crackers, arrowroot	+ 4.47	Cake (average)	+ 3.70	Cookies, choc chip low fat	+ 2.39	Milk chocolate	+ 2.40

Other

Gelatin	+ 41.76						
---------	---------	--	--	--	--	--	--