## Vitamin Supplements for Kidney Disease

We all know vitamins are good for us, but sometimes you can have too much of a good thing. When you use vitamin supplements to aid kidney disease, it is important to limit certain vitamins and minerals. They may build up in the body and become toxic as your kidneys stop working. We can divide vitamins into two groups; fat-soluble and water-soluble.

**Fat-soluble vitamins:** These are vitamins A, D, E and K. We suggest that people with kidney disease do not take supplements with vitamins A and K. Typically you get enough of these vitamins in your diet and they may be harmful if you take too much. If you need Vitamin D, your doctor will prescribe a special kind that is best for people with kidney disease. It is alright to take Vitamin E, but is usually not needed.

Water-soluble vitamins: These include several B-vitamins and vitamin C. B-vitamins are folate, thiamin, riboflavin, niacin, pantothenic acid, biotin, vitamin B6 and vitamin B12. Most people with kidney disease on dialysis should take a supplement with B vitamins and vitamin C to replace what is lost in the dialysis solution. Your doctor may prescribe these, or you may want to purchase them over the counter on your own. If you buy a vitamin supplement, here are the levels you should look for on the label:

- Vitamin C (60 mg)
- Folic acid (1.0 mg)
- Thiamin (1.5 mg)

- Riboflavin (1.7 mg)
- Niacin (20 mg)
- Vitamin B6 (10 mg)
- Vitamin B12 (6 mcg)
- Pantothenic acid (10 mg)
- Biotin (0.3 mg)

What to Avoid: Do not purchase supplements such as B-100 or multi-vitamins. B-100 supplements contain large amounts of B-vitamins; some of these are dangerous when taken in high amounts. Multi-vitamins may contain phosphorous and potassium, in addition to vitamins A & K.

Most doctor's and dietitians will recommend you purchase supplements that only contain B-vitamins plus vitamin C. Be sure to read the nutrition labels of vitamin supplements before buying. Below are examples of good choice vitamins (on the left) vs. a not so good choice (on the right).

## **Supplement Facts:** Recommended for Renal Disease

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Amount Per Serving	
0 I.U.	0%
60 mg	100%
0 I.U.	0%
0 I.U.	0%
0 mcg	0%
1.5 mg	100%
1.7 mg	100%
20 mg	100%
10 mg	500%
1.0 mg	250%
6 mcg	100%
30 mcg	10%
10mg	100%
0 mg	0%
	0 I.U. 60 mg 0 I.U. 0 I.U. 0 mcg 1.5 mg 1.7 mg 20 mg 10 mg 10 mg 1 mg 0 mcg 0 mg 0 mg

Supplement Facts:

Non-recommended for Renal Disease

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Amount Per Sei	rving	% DV	
Vitamin A	3500 I.U.	70%	
Vitamin C	60 mg	100% ′	
Vitamin D	400 I.U.	100%	
Vitamin E	30 I.U.	100%	
Vitamin K	25 mcg	31% <	L
Thiamin	1.5 mg	100%	
Riboflavin	1.7 mg	100%	
Niacin	20 mg	100%	
Vitamin B6	2 mg	100%	_ ا
Folic Acid	400 mcg	100% <	K
Vitamin B12	6 mcg	100%	
Biotin	30 mcg	10%	
Pantothenic Ac	id 10mg	100%	
Calcium	162 mg	16%	
Iron	18 mg	100%	
Phosphorous	109 mg	11% 4	
Zinc	15 mg	100%	
Potassium	80 mg	2%	

Look for vitamins that contain about **60 mg of vitamin C** (sometimes called ascorbic acid). It is recommended that people with renal disease do not take more than 200 mg daily of vitamin C.

Notice that **recommended** vitamin supplements (**on left**) do not contain any vitamin A or vitamin K (0% of daily value or % DV), but the non-recommended supplement (**on right**) contain lots of vitamins A & K (70% and 31% of %DV).

Most vitamin supplements will contain lots of the B-vitamins. This is good, as you need lots of these vitamins. However, you should avoid supplements which contain very high levels of B-vitamins. This includes supplements like B-100.

Avoid supplements that contain calcium, phosphorous, and potassium. Notice that recommended supplements contain no calcium, phosphorous or potassium!