Vitamins and Minerals Role in CKD

Copper

Acts as an antioxidant in the body, protecting cells from free radical damage and neutralizing harmful peroxides. Copper levels may decline over time in patients with kidney disease¹¹

Iron

Kidney patients, especially those who are on dialysis, cannot maintain adequate iron stores; so, they are at risk for developing anemia. To prevent anemia in kidney patients, the KDOQI Guidelines recommend regular iron supplementation to achieve target iron levels¹¹

Selenium

Acts as an antioxidant that binds free radicals to protect cells against oxidative stress. Selenium levels may decline over time in patients with kidney disease⁹.

Zinc

In the right amount may help protect cells from free radical damage. Lower zinc level in CKD patients might happen due to the increased urinary zinc excretion and the decreased intestinal zinc absorption. Zinc is required to maintain the structures and functions of more than 200 enzymes, such as enzymes needed in transcription and translation of genetic material and cell division¹³.

B Vitamins Group

One of the important functions of vitamin B6, B12 and folic acid is to work together with iron to prevent anemia. Thiamine, Riboflavin, Pantothenic acid and Niacin, can also be given as a supplement. These vitamins help to change the foods into energy in body 9.

Vitamin C

Oxidative stress and inflammation are also a common problem in CKD patients, and both have an important role in the development and progression of atherosclerosis and increased cardiovascular events in CKD. Ascorbic acid might be a promising agent in CKD for improving outcome by decreasing oxidative stress and ADMA (Asymmetric dimethylarginine) levels¹²

Vitamin E

Helps protect cells from oxidation and free radicals to protect against some types of cancer. It's also considered as a means of correcting plasma antioxidant status and attenuating the cardiovascular disease that accompanies kidney failure¹⁰.



DUrgLife for is designed to provide everything the kidnevs may need to function at their best.

Ingredients	Amount Per Tablet	Daily Value ⁸ %
Vitamin B1 (Thiamine)	1.5 mg	100 %
Vitamin B2 (Riboflavin)	1.7 mg	100 %
Vitamin B3 (Niacin)	20 mg	100 %
Vitamin B5 (Pantothenic Acid)	5 mg	50 %
Vitamin B6 (Pyridoxine)	10 mg	500 %
Vitamin B7 (Biotin)	300 µg	100 %
Vitamin B9 (Folic Acid)	1 mg	250 %
Vitamin B12 (Cyanocobalamin)	2.4 µg	40 %
Vitamin C	60 mg	100 %
Vitamin E	25 IU	75%
Iron (as Ferrous Fumarate)	8 mg	44%
Zinc (as Zinc Oxide)	15 mg	99%
Copper (as Copper Oxide)	55 µg	45 %
Selenium (as Sodium Selenite)	900 µg	79%
Excipients: Microcrystalline Cellulose, Croscarmellose Sodium, Maltodextrin, Silicon Dioxide, Magnesium Stearate, Opadry		

Duralife kidney support Formula is excellent choice:

- It has antioxidant agents. Antioxidants are helpful in hemodialysis patients, reducing the risk of cardiovascular events and increasing the quality of dialysis.
- It has suitable formulation for CKD patients; Over-the-counter supplements may contain large doses of specific minerals and vitamins, which could be toxic for CKD patients. Also, water-soluble vitamins are removed from the blood during the dialysis process, leaving the CKD population more vulnerable for a deficiency, therefore, CKD patients on dialysis are encouraged to take a daily Dura Life Kidney Support Formula.
- The best approach to ensure Kidney patients get a variety of vitamins and minerals.

Currently, Chronic Kidney Disease (CKD) is a public health issue due to the rapid rising trend of its prevalence¹. Based on the results of the random effect method, the overall prevalence of CKD in Iran is 15.14%². CKD predisposes patients to vitamin and mineral deficiencies, which may contribute to comorbidities such as anemia, cardiovascular disease, and metabolic imbalances. Studies show a high prevalence rate of malnutrition in both children and adults with CKD³. A delicate interplay of multiple factors, including hormonal imbalances, decreased appetite and food intake, inflammation, increased catabolism, nutrient losses in dialysate and metabolic derangements predispose chronic kidney disease patients to malnutrition⁴⁻⁷. Those diagnosed with CKD have different needs for specific vitamins and minerals compared with those without CKD. Consequently, vitamin and mineral combinations, prescribed specifically to needs of CKD patients, are important for their overall health.

Dosing and administration One tablet once daily with the main meal and a full glass of water

- Contraindication: Hypersensitivity to any component of the formulation.
- **Pregnancy and Breast-Feeding:** The benefits and risks of use should be assessed on an individual basis. Vitamins and minerals are present in breast milk. For more information, refer to individual vitamins and minerals monographs for requirements during pregnancy and while breast-feeding.
- Warning and Precautions: Severe hepatic impairment; Severe renal impairment; Severe iron toxicity may occur in overdose, particularly when ingested by children; Avoid prescribing more than the recommended amount.
- Interactions: Iron absorption is inhibited by eggs and milk.
- Side effects (rare): Signs of an allergic reaction, Black or tarry stool, Fever, Upset stomach, Belly pain, Stomach cramps.
- Storage: Store at room temperature and keep away from light and moisture. Keep out of the reach and sight of children.



Reference:

1.Hallan SI, Coresh J, Astor BC, Asberg A, Powe NR, Romundstad S, et al. International comparison of the relationship of chronic kidney disease prevalence and ESRD risk. J Am Soc Nephrol.2006; 17:2275-84.

2.Bouya S, Balouchi A, Rafiemanesh H, Hesaraki M, et al. Prevalence of Chronic Kidney Disease in Iranian General Population: A Meta-Analysis and Systematic Review. Ther Apher Dial. 2018 Dec; 22(6):594-599.

3. Franca M. Malnutrition in Chronic Kidney Disease. Frontiers. 2018 Jun 20; 10.3389/fped.2018.00161

4.Mastrangelo A, Paglialonga F, Edefonti A. Assessment of nutritional status in children with chronic kidney disease and on dialysis. Pediatr Nephrol. (2014) 29:1349–58. 10.1007/s00467-013-2612-7

5.Zha Y, Qian Q. Protein nutrition and malnutrition in CKD and ESRD. Nutrients (2017) 9:E208. 10.3390/nu9030208

6.Kohaut EC. Chronic renal disease and growth in childhood. Curr Opin Pediatr. (1995) 7:171-5. 10.1097/00008480-199504000-00010

7.Mak RH. Cachexia in children with chronic kidney disease: challenges in diagnosis and treatment. Curr Opin Support Palliat Care (2016) 10:293–7. 10.1097/SPC.00000000000217

8.Uptodate/Multiple vitamins/2019

9.https://www.kidney.org/atoz/content/vitamineral

10.https://www.nationalacademies.org/fnb/food-and-nutrition-board

11.Guidelines for anemia of chronic kidney disease, NKF KDOQI Guidelines,

http://www.kidney.org/professionals/kdoqi/guidelines_updates/doqiupan_iii.html, 2000.

12.Karahan S, Afsar B, et al. Ascorbic acid: a promising agent in chronic kidneydisease. Clinical Kidney Journal, 2018, vol. 11, no. 4, 530-531

13. Vanholder R, Cornelis R, Dhondt A, et al. The role of trace elements in uraemic toxicity. Nephrol Dial Tranplant. 2002;2:2-8



60 Tablets for oral administration

DISCOVER BETTER TOMORROWS

Available with Selenium, Copper & Iron Gives the Kidneys What They Need All-in-one Supports Nutrient Deficiencies Common in Kidney Patients



www.duralife.ir

Tel: +98 (21) 57941000

Faranshimi

