Potassium

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Potassium is an essential element in maintaining fluid balance in our cells, contributing to the transmission of nerve impulses, the control of skeletal muscle contractility, and the maintenance of normal blood pressure. However, it must exist in balance with sodium. During nerve transmission and muscle contraction, potassium and sodium exchange places. Together with high sodium intakes, decreasing potassium intakes may be implicated in hypertension and heart disease.

Potassium is also known as a catalyst in protein and carbohydrate metabolism. Diuretic drugs can deplete potassium and so can be dangerous. When sodium is lost with water from the body, the ultimate damage comes when potassium moves out of the cells with cell water.

There is no RDA for potassium. However, some believe that the minimum requirement should be between 1,600 to 2,000 milligrams a day. Since an intake of about 1,600 milligrams a day is required just to maintain normal body stores and a normal concentration in plasma and fluid, a higher level would insure optimal levels. According to some researchers, a diet rich in fruits and vegetables and low in sodium should insure maintenance of optimal potassium levels. However, it has been calculated that due to the poorer absorbability of potassium in fruit without chloride, only 40 percent of the potassium, say in a banana, is retained. Unfortunately this finding is often not calculated into food value tables, which estimate total potassium intake in foods. This is one reason that when potassium supplementation is suggested by a physician, potassium chloride is recommended. In a study of vegetarians and non-vegetarians, significantly lower blood pressure was found in every decade of age; only 2 percent of the vegetarians had hypertension (higher than 160/95) as compared to 26 percent hypertension in the non-vegetarians. This study adds further confirmation of the suspicion that potassium plays an important role in regulation of blood pressure, and may protect against the development of hypertensive cardiovascular disease.

A low-sodium diet enhances potassium conservation, whereas a high-sodium diet promotes potassium excretion. In a study of ten thousand subjects in the United States, it was found that those with the highest levels of calcium, potassium, vitamin A, and vitamin C, had the lowest incidences of hypertension, suggesting that potassium is not the only essential nutrient in maintaining normotensive status in humans.

Category	**Age**	**Weight (lb.)**	**Height (in.)**	**Potassium (g)**	
Footnote		(1)	(1)	(2) Est. RDA	(3) *Optimal*
Males	11-14	99	62	2	2

	15-18	145	69	2	2.5
	19-24	160	70	2	3
	25-50	174	70	2	3
	51+	170	68	2	3
Females	11-14	101	62	2	2
	15-18	120	64	2	2.5
	19-24	128	65	2	3
	25-50	138	64	2	3
	51+	143	63	2	3

Potassium References

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