

# Vegetarian Diet is associated with a Lower Risk of Cataract, Especially in Overweight Individuals: A Study of the Future

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**Keywords:** Vegetarian diet; Cataract; Smoking; Tzu Chi Health Study

Oxidative stress in the lens of the eye causes cataracts, and plant-based diets can contain a wide range of antioxidants that protect against damage. However, homocysteine levels can rise in strict vegetarians who don't get enough vitamin B-12, which could make them more likely to develop cortical cataracts. Investigating whether vegetarianism's benefits outweigh its risks for cataract development is warranted [5].

Our objective was to investigate the potential link between cataract risk and a vegetarian diet in Taiwan.

Chronic diseases have been largely attributed to unfavorable shifts in global dietary patterns [1]. Dietary risk factors were cited as the cause of 11 million deaths and 255 million disability-adjusted life years (DALYs) in 2017. Cancer was followed by cardiovascular disease as the leading cause of diet-related deaths and DALYs (207 million DALYs). Ischemic heart disease (IHD) mortality decreased from 2005 to 2015, but it continues to be the leading cause of death. [6] Consumption of red meat has been linked to a slight increase in the incidence of total, cardiovascular, and cancer mortality in previous studies. To alleviate this problem, the 2019 American College of Cardiology (ACC)/American Heart Association (AHA) Guideline on the Primary Prevention of Cardiovascular Disease recommended eating fish, whole

grains, legumes, nuts, fruits, and vegetables to lower cardiovascular risk (Class: I, Evidence Level: BR). Red meat-free diets, on the other hand, have been found to have no effect on all-cause, cardiovascular, or cancer mortality in recent studies [7].

**Objective:** To investigate the potential link between cataract risk and

**Design:** The research was conducted as a prospective cohort study

Participants and setting Dalin Tzu Chi Hospital was the location where the Chi Health Study from 2007 to 2009. A validated food frequency questionnaire was administered to 40 and older who did not have cataracts at the time of recruitment (3,000 participants).

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**Conclusions:** In the study's overweight participants, a vegetarian diet was associated with a lower risk of cataract.

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such as the post-hoc analysis of the PREDIMED trial, which found a significant mortality reduction of 41% with a vegetarian diet. A pescatarian/semi-vegetarian diet was included in antecedent meta-analyses with a similar research question. Adjusted effect measures were not used, IHD or cerebrovascular mortality was not reported, and so on.

We conducted a meta-analysis of observational studies reporting mortality outcomes comparing a vegetarian diet to a non-vegetarian diet in light of this evidence gap [8].

I sampled two large North American communities using MTurk. In sample 1, the average age was 35.47 (SD = 1.79), while in sample 2, it was 35.44 (SD = 11.23). In sample 1, there were 47% women, while in sample 2, there were 45%; White/European-Americans made up 67% of sample 1 and 73% of sample 2, while Black/African-Americans made up 8% and 7%, Asian/Asian-Americans made up 14% and 10%, Latinos made up 8% and 7%, and other racial groups made up 3% and 3%.

Respondents were asked to indicate whether they were meat-eaters, meat-reducers (i.e., made regular efforts to cut back on meat in general, red meat in particular, or red meat and poultry in particular), or veg\*ns (vegetarians or vegans). This question was used to measure respondents' vegetarian status. There were 759 vegetarians, 186 meat-eaters, and 58 vegetarians. 766 meat eaters, 188 meat-reduced eaters, and 54 vegetarians comprised.

Rather than using clinical measures of acute depressive episodes, this community sample's depression was measured using questionnaires that inquired about the general tendency to experience negative emotions. In sample 1, the depressiveness facet of the BFI-2 and the depressiveness facet of the CAT-PD were utilized, while in sample 2, the PID-5 depressive scale was utilized. "I have no worth as a person" (PID-5), "I am sad most of the time" (CAT-PD), and "I tend to feel depressed, blue" are examples of items. BFI-2 and CAT-PD items are scored on a 0–4 scale, with higher scores indicating more depression, while PID-5 scores are scored on a 0–3. Averaging item scores was used to calculate scale scores. Using between-subjects ANOVAs, LSD post-hoc comparison tests, and a Type 1 error rate of 0.05, the three diet groups were compared on the three depression scores.

The groups' mean depression scores are presented. The overall F-test in study 1 was statistically significant ( $p = 0.013$ ) at  $F(2,1000) = 4.34$ . Meat eaters had the lowest depression scores, according to post-hoc testing, followed by vegetarians and meat-eaters. However, the difference between meat-eaters and meat-reduced individuals was the only one with statistical significance ( $p = 0.004$ ). In Study 2, the same pattern emerged. BFI-2 depression had a significant overall effect ( $F(2,1005) = 4.04, p = .018$ ). Post-hoc testing revealed significant differences ( $p = .013$ ) between meat-eaters and meat-reduced individuals, as well as between vegetarians and meat-eaters. ( $F(2,1005) = 2.97, p = 0.052$ ) The overall effect on CAT-PD depressiveness was not statistically significant. Post-hoc testing, on the other hand, revealed a significant difference ( $p = 0.017$ ) between meat eaters and meat-reduced individuals. As would be expected based on the effect sizes reported in recent meta-

and cataracts [11]. This suggests that the inverse association between a vegetarian diet and cataracts might be stronger among those who have a higher risk of cardio metabolic disease. The nonsignificant results could be due to the small sample size for subgroup analyses, but it is impossible to say for sure.

**Table 4:** Area under Cultivations (Ha) of different crops in three Panchayaths during the study period.

SI NO	Crop	Area under Cultivations Hectares (Ha)			Season
		Panchayaths			
		Agali	Pudur	Sholayur	
1	Maize	200	300	350	Winter
2	Chama	175	200	225	Winter
3	Sorghum	175	200	225	Winter
4	Barley	25	50	50	Winter
5	Foxtail millet (Thina)	35	35	45	Winter
6	Barnyard millet (kadavapullu)	25	30	40	Winter
7	Kodo millet	23	30	45	Winter

Food Grains	Carbohydrates (g)	Protein(g)	Fat(g)	Energy (Kcal)	Calcium (mg)	Iron (mg)
Maize	72.0	7.3	1.3	328	34.4	3.9
Chama	67.0	7.7	4.7	341	17	9.3
Sorghum	72.6	10.4	1.9	349	25	4.1
Barley	67.5	11.6	5	361	42	8
Foxtail millet (Thina)	60.9	12.3	4.3	331	31	2.8
Barnyard millet (kadavapullu)	65.5	6.2	2.2	307	20	5
Kodo millet	65.9	8.3	1.4	309	27	0.5

**Source:**

