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HOW LIFESTYLE AFFECTS HEALTH—CHANGES IN HEALTH STATUS BEFORE AND AFTER THE EARTHQUAKE

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In addition to the great disaster caused by the Great East Japan Earthquake and tsunami, enormous social impact and environmental pollution occurred as a result of radioactive fallout from the Fukushima Daiichi nuclear accident. Residents of the evacuation zones were forced to evacuate after the earthquake to temporary housing and live in an unfamiliar environment, which resulted in lack of exercise, changes in eating habits, and increase in psychosocial stress, suggesting a possible increase in the frequency of lifestyle-related diseases. In addition, lifestyle changes in areas such as eating habits during evacuation, physical activity, and increased psychosocial stress are thought to affect the evacuees' health status. Thus, in this study, we compared medical examination results of the evacuation area residents before and after the earthquake.

The participants were 41,633 men and women 40 years old or older (18,745 men, 22,888 women, average age of 66.9 years) who had resident registration before the Great East Japan Earthquake in 13 municipalities designated as evacuation zones and who had undergone a specific medical checkup (or later-stage elderly medical checkup) more than once between 2008 and 2010. The data from 2008-2010 were used as baseline while subjects who underwent medical examination in 2011 and 2012 were in-

Factors related to new onset of hypertension

	Odds ratio	95% confidence interval	
Age (1 year old)	1.07	1.05	1.08
BMI (1 kg/m^2)	1.13	1.10	1.17
Changes in BMI (1 kg/m^2)	1.25	1.15	1.34
Male	1.01	0.82	1.24
Large consumption of alcoholic drinks (360 mL or more)	1.80	1.12	2.89
Smoking	1.15	0.86	1.53

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cluded in the follow-up surveys as analysis subjects.

From the 41,633 total participants, 27,486 (12,432 men, 15,054 women, follow-up rate : 66%, mean follow-up period : 1.6 years) underwent medical examination after the earthquake. The evacuation zone was divided into evacuation area (9,671 participants) and non-evacuation area (17,815 participants). In the non-evacuation area, there was an increase in body weight of 0.3 kg and in obesity from 28.2% to 30.5%, whereas in the evacuation area the average increase in body weight after the earthquake was 1.2 kg and in obesity was from 31.5% to 38.8%, suggesting a more noticeable increase in body weight and obesity in the evacuation area group. Furthermore, in conjunction with an increase in body weight, increases in hypertension, diabetes, and dyslipidemia were clearly visible in the evacuation area group. From the above results, an increase in the number of people with lifestyle-related diseases was seen in relation to the increase of body weight and obesity, but this trend appeared stronger in the evacuees since this was likely to occur due to changes in lifestyle from before to after the earthquake. Continuous research and support for the evacuees are needed as the risk of cancer and cardiovascular diseases can become higher for evacuees.