

Climate Change and Disease: Role of Global Warming in Worldwide Type 2 Diabetes Epidemic

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Type 2 diabetes mellitus is one of the oldest known diseases and mostly is due to life style and genetic factors. Physical inactivity and obesity, sedentary lifestyle, long term exposure to free radicals caused by stress, cigarette smoking and consumption of alcohol are important factors in diabetes. Excess energy stores as triglycerides in adipose tissue and when the storage capacity of adipose tissue is exceeded, lipids can accumulate in some organs which can cause insulin resistance in them. It was demonstrated that activation of brown adipose tissue at cold climate, by consuming the stored lipids, might be reduced insulin resistance. Climate change and global warming directly and indirectly enforce the stress to the society and imposes various diseases, specially diabetes type 2. Considering the global warming phenomena it could be concluded that changing the lifestyle is necessary to reduce the risk of type 2 diabetes.

Keywords: Type 2 diabetes, Global warming, Obesity, Adipose Tissue, Stress, Diseases.

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