

Why is it Necessary to Take Care of Weight Gain/Obesity when Managing a Case for Tobacco Cessation?

Rakesh Gupta^{1*} and Reena Kumar²

¹President and Director of Public Health, Strategic Institute for Public Health Education and Research (SIPHER), Chandigarh, India

²Academic Director ICanCaRe, Regional Clinical Advisor Special Olympics, Asia Pacific, India

***Corresponding Author:** Rakesh Gupta, President and Director of Public Health, Strategic Institute for Public Health Education and Research (SIPHER), Chandigarh, India.

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Background

- Tobacco use in any form (Smoking or Smokeless) is a major public health issue and the most important preventable cause of Non-Communicable Diseases (NCDs) and death. It kills 1.35 million people in India alone and more than 8 million people each year worldwide. More than 7 million of those deaths are the result of direct tobacco use while around 1.2 million are the result of non-smokers being exposed to second-hand smoke [1]. Most tobacco users gain weight after quitting, which may lead to the (early) onset of Type 2 Diabetes Mellitus (T2DM) and associated comorbidities [2].
- The increase in the risk of having T2DM was found to be proportional to the gain in weight. The risk of T2DM was found to be higher among recent quitters within two-six years than among current smokers [3].

The correlation of obesity and tobacco use

Tobacco use and obesity are the two main causes of NCDs like type 2 diabetes, hypertension, and cardiopulmonary disease, and even death.

The impact of weight gain in tobacco users and its prevalence

Many persons who quit tobacco gain weight to some extent. It has been found that 15% may gain weight and 18% may even become obese after quitting tobacco. The weight gain is more in those with higher BMI before quitting. There may be increased central obesity which may neutralize the benefits of quitting especially in those who have been heavy smokers, go for a compulsive excessive eating, and who are not physically active [2].

Anticipating weight gain may be a roadblock to try quitting but the benefits of quitting tobacco are much more than the risks of getting overweight [4].

Nicotine use increases the BMI leading to decreased weight [5].

Reduced body weight by Nicotine is by increase in the resting metabolic rate, though increase in food is expected with increase in BMR. Through the regulation of metabolism in the brain, Nicotine a sympathomimetic agent increases energy expenditure. Nicotine also increases thermogenesis in adipose tissue by increasing lipolysis [6].

The reasons for weight gain with tobacco cessation

Increased eating/caloric intake to counter withdrawal symptoms and lesser consumption of energy lead to gain in weight with quitting. More sugar intake is there which may increase the glycemic load.

So, a well-planned approach is required with the involvement of physical activity experts, dietetic specialists, and psychologists for tobacco cessation programs especially for women [7].

Effect of tobacco cessation on diabetes

Tobacco is more harmful to already Diabetic persons as they have higher HbA1c and high tobacco users have a 30 - 44% more chance of getting Type 2 Diabetes. This is related to excessive weight gain, especially central obesity and chronic inflammation in those who have quit recently. But quitting is still beneficial as the chance of getting Hypertension and mortality due to cardiovascular diseases is decreased.

Ways to prevent post quitting gain in weight

The worry about weight gain before cessation attempts and managing weight gain during and after cessation needs to be addressed. Individualized diet and weight management, physical activity interventions, and NRT need to be a part of cessation interventions.

Management of weight with low-calorie meals and increased physical activity is effective in increased tobacco abstinence and post-cessation weight gain. The use of medications such as nicotine replacement therapy (NRT) and varenicline reduces post-cessation gain in weight in the short term.

Behavioral approaches along with weight management and tobacco cessation to address the concerns of weight gain post-cessation

We need to encourage tobacco users to be more focused on the benefits of cessation than being concerned about gain in weight. Multi-trial studies indicate that managing concerns about the weight or body image with counselling for tobacco cessation leads to reducing post-cessation weight gain with no dent in cessation efforts.

Educating persons about weight gain during cessation

Educating persons about weight gain during cessation along with advice about nutrition increases tobacco abstinence and reduces anxiety about weight gain and encourages cessation.

As tobacco cessation leads to weight gain, dietary education leads to eating behavior changes preventing weight gain [8].

The effect of increased physical activity on cessation

With increased physical activity, there is lesser weight gain, improvement of body image, and better results of cessation efforts.

Pharmacologic approaches to cessation and weight management

Combination of nicotine replacement therapy (NRT) in the form of gums, lozenges, patches and spray along with drugs like varenicline and bupropion have been shown to be more effective strategy than using single medication. The varenicline has been found to significantly reduce post-cessation weight gain at 12 months in comparison to the use of NRT [2].

Combined interventions for tobacco cessation along with weight management for diabetics

Combined interventions for tobacco cessation along with weight management for diabetics is more successful in managing their glycaemic control.

Role of general physicians in managing the weight of their patients during tobacco cessation

There is a requirement for capacity building of general physicians Health care providers in tackling simultaneously two difficult behaviors of their patients such as quitting tobacco and losing weight. They can either learn to manage such interventions or refer patients to personals specialized in tobacco cessation and weight management.

The recommendations as per current evidence and knowledge:

1. Educate tobacco users that a little weight gain after quitting is common and is generally not long lasting if there is a change in lifestyle.
2. Intake of low-calorie substitutes to tobacco use such as vegetables, condiments usually available at home like cinnamon and sugar-free gums.
3. Regular increased exercise, diet, and weight management.
4. NRT and other available medications which delay weight gain.
5. Tobacco and weight treatment must be integrated into clinical and behavioural treatment with more physical activity, healthy foods, regular meals, and a focus on quitting tobacco.

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