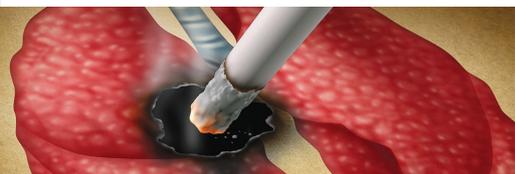


CANCERFOCUS



1 Don't Smoke Me Out



4 Lung Cancer – Risk of Light and Intermittent Smoking



5 Smoking Trends of Youngsters in Singapore



7 Call It Quits



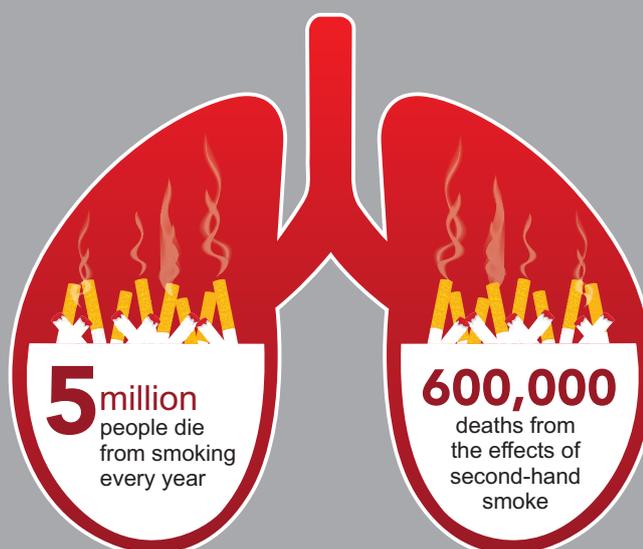
8 Singapore Cancer Society – New Voice Club Support Group

DON'T SMOKE ME OUT

Dr Ken Lee

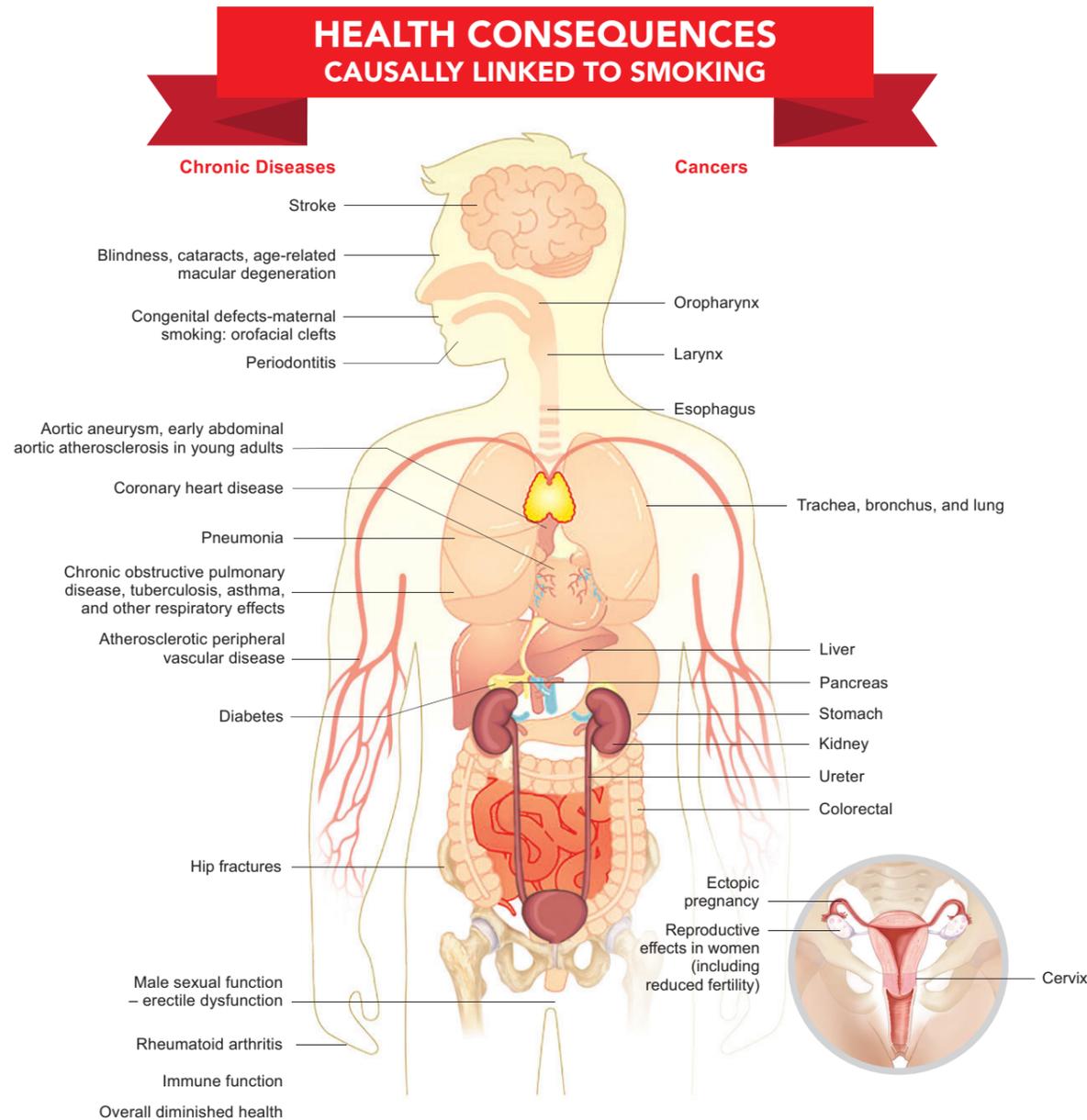
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For centuries tobacco was highly regarded for its purportedly vast range of medicinal uses — from treatment of head lice to haemorrhoids, hysteria to tetanus — its spectrum of potential therapeutic applications far exceeded any modern-day drug. The first documented association between smoking and illness was for lung cancer in the 1950s¹, which soon led to a widened interest in other smoking related health diseases. Today smoking is undoubtedly the leading risk factor for premature death. Approximately 5 million people die annually from smoking and another 600,000 deaths result from the effects of second-hand smoke². In Singapore, the smoking prevalence approximates 15% among adults and 6% among youths (13-15 years old).³ Eight out of ten smokers start smoking during adolescence. Those who smoke during adolescence are 16 times more likely to become adult smokers.⁴



Adverse Effects of Smoking

Some of the more commonly recognised adverse effects of smoking include increased risks of various cancers, cardiovascular and respiratory diseases, but the list continues. We see from the diagram below that smoking impacts nearly every body organ.



Source: U.S. Department of Health and Human Services. *The health consequences of smoking – 50 years of progress: a report of the surgeon general*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2014.

Therefore, active measures against smoking is of utmost importance with an enormous potential to improve overall public health. Risk of coronary heart disease decreases 50% after 12 months of smoking cessation. The relative risk of developing chronic obstructive pulmonary disease, lung cancer and stroke

also decreases in those who quit smoking. Smoking cessation treatment should be integrated into the management of patients, particularly those with respiratory diseases in whom the urgency to stop smoking is even higher.



Unfortunately, the highly addictive nature of nicotine makes smoking cessation easier said than done. Nicotine binds to acetylcholine receptors in the brain, which stimulates an increase in dopamine release. This gives rise to the reward sensation that smokers experience.

Nicotinic exposure also causes upregulation of nicotinic receptors which leads to dependence, tolerance and withdrawal symptoms. The degree of dependence can be assessed using the Fagerström Test for Nicotine Dependence. (Table 1)

TABLE 1: FAGERSTRÖM TEST FOR NICOTINE DEPENDENCE

Question	Response	Points
1. How soon after you wake up do you smoke your first cigarette?	Within 5 min	3
	6–30 min	2
	31–60 min	1
	After 60 min	0
2. Do you find it difficult to refrain from smoking in places where it is forbidden?	Yes	1
	No	0
3. Which cigarette would you ate most to give up?	The first one in the morning	1
	Any other	0
4. How many cigarettes per day do you smoke?	≤10	0
	11–20	1
	21–30	2
	≥31	3
5. Do you smoke more frequently during the first hours after waking than during the rest of the day?	Yes	1
	No	0
6. Do you smoke if you are so ill that you are in bed most of the day?	Yes	1
	No	0
Total score		

Source: Heatherton TF, Kozlowski LT, Frecker RC, Fagerström KO. *The Fagerström Test for Nicotine Dependence: a revision of the Fagerström Tolerance Questionnaire*. Br J Addict 1991; 86: 1119-1127.

Nicotine withdrawal syndrome (nicotine craving, irritability, anxiety, difficulty with concentration, sleep disturbance) is a major reason for relapse in smokers who make a serious attempt to quit, among other factors like social influences or presence of depression.

Consequently, treating smoking addiction often poses a bigger challenge than treatment of the disease itself. Patients who attempt to quit smoking unassisted generally achieve low success rates (3-5%).⁵ Higher success is seen among those who seek professional help. Even then, multiple attempts are often required before long term abstinence is achieved.

The key strategies for smoking cessation include behavioural treatment and pharmacotherapy. Although each is effective on its own, combining both techniques is usually recommended to improve efficacy. Medications commonly used include nicotine replacement therapy (available in different forms), bupropion and varenicline. Choice of pharmacotherapy is dependent on factors such as presence of co-morbidities, cost, as well as the physician's and patient's preferences.



References: 1. Wynder EL, Graham EA. Tobacco smoking as a possible etiological factor in bronchogenic carcinoma: a study of 684 proven cases. *JAMA* 1950; 143:329-336. 2. World Health Organization. *WHO global report mortality attributable to tobacco*. 2012. 3. Gianna Gayle Herrera Amul, Tikki Pang. *Progress in tobacco control in Singapore: lessons and challenges in the implementation of the framework convention on tobacco control*. *Asia and the Pacific Policy Studies* 2017; 5(1): 102-121. 4. Chassin L, Presson CC, Sherman SJ, Edwards DA. *The natural history of cigarette smoking: predicting young- adult smoking outcomes from adolescent smoking patterns*. *Health Psychol* 1990; 9: 701-716. 5. Hughes JR, Gulliver SB, Fenwick JW, et al. *Smoking cessation among self- quitters*. *Health Psychol* 1992; 11: 331-335.

LUNG CANCER

RISK OF LIGHT & INTERMITTENT SMOKING



The general population is nowadays well aware that tobacco smoking dramatically increases the risk of developing lung cancer. However, light and intermittent smokers pose a serious health challenge as they tend not to consider themselves "smokers" and consequently ignore the significant health risks.

A French national survey suggested that **34% of all respondents** (N=1463, aged 40-75) **believed that smoking ≤10 cigarettes per day does not carry any risk of lung cancer.**² However, the fact remains that the lung cancer risks for light smokers are substantial, while lower than daily smokers. **Women who smoked 1-4 cig/day had 5 times the risk of developing lung cancer and men had 3 times the risk as non-smokers.**³

Never-smokers Among Lung Cancer Patients

A common misconception about lung cancer is that only people who smoke get the disease.

It's simply not true, and that assumption has created a lot of stigma that is very harmful to the wellbeing of lung cancer patients. There are many other potential causes of lung cancer, including exposure to radon, air pollution and other environmental factors, as well as a genetic history.

Researchers from National Cancer Centre Singapore reported that the proportion of never-smokers among



Women who smoked **1-4 cigarettes/day** had **5 times the risk** of developing lung cancer

lung cancer patients increased from 31% in 1999-2002 to 48% in 2008-2011. This increasing trend was observed together with improved survival for these patients during the 10-year period. The survival improvement among never-smokers was likely due to the increase in never-smokers who were treated with tyrosine kinase inhibitors and pemetrexed over time.

For more information and if you need help to quit, please call **QuitLine at 1800 438 2000** or log into <https://www.healthhub.sg/programmes/88/IQuit>

SMOKING TRENDS OF YOUNGSTERS IN SINGAPORE

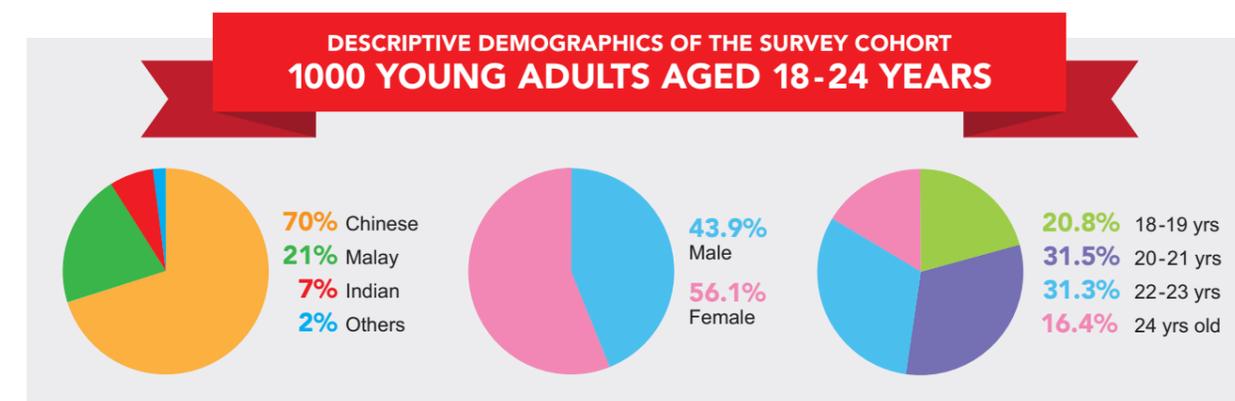
RESEARCH FINDINGS BY SINGAPORE CANCER SOCIETY

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Smoking is known as the largest single preventable cause for early death and disease in most developed nations including Singapore. Over the years, studies have confirmed the cause-effect association of smoking incidence to major health impacts such as lung cancer, cardiovascular disorder and chronic obstructive pulmonary disease. It is heartening that parallel to active anti-tobacco measures such as, tax increase, ban on advertising and graphic health warnings, the prevalence of cigarette smoking is declining in Singapore in the recent times. Nonetheless, smoking behaviour is widely discerned in young adults and it appears that approximately 80% of adult smokers would have begun their smoking tendency even before the age of 21 years.

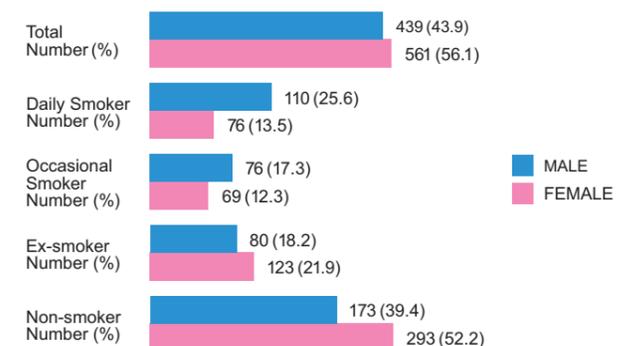
Evidence points to such an early experimentation as one of the major predictors of smoking liability or dependence in later life. This knowledge makes it crucial to understand the determinants of smoking in adolescent and young adult populations so as to reinforce effective campaigns and interventions targeting the vulnerable populations. This was the primary goal of a recently concluded cross-sectional online survey by Singapore Cancer Society (SCS), which aimed to collect population data on the smoking habits – steered from individual, interpersonal, community and societal factors in about 1000 young adults aged between 18-24 years.

The socio-ecological highlights from this purposive sampling survey are as follows:



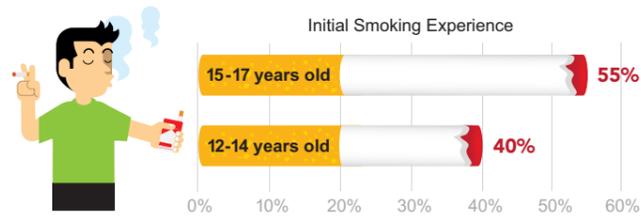
Gender prevalence of smoking behaviour among youngsters in Singapore follows observations worldwide. Across all ages, races and ethnicities, cigarette smoking is found to be more common among males than females. While the number of male smokers continue to predominate over the count of female smokers, according to World Health Organization (WHO)'s report on the impact of tobacco use on women's health, this gender gap is narrowing in the last few decades.

Gender Distribution Based on Purposive Sampling Method – SCS Survey



As identified by the SCS survey, a majority of the young smokers experimented with smoking during their adolescence i.e., at the age of 12-14 years and had established the habit of regular smoking around 18 years of age. Humans are social animals. An individual's decision to experiment with smoking or become a regular smoker well depends on major as well as minor causal factors surrounding him/her. According to the theory of learning and social behaviour, smoking is a socially learned activity that is acquired by observing or following others in the society.

Age Range of Initial Smoking Experience for Smokers Aged 18-24



A variety of psychosocial reasons influences smoking tendency in adolescence. In its simplest form, smoking is accepted as a norm in many social settings. This can be reinforced by conditioning of environmental cues – especially if there is a tendency to imitate the smoking behaviour of peers, siblings or parents. At times, the action of smoking may be seen as a bonding opportunity to integrate into the social domain of friends with similar interests. In a fast-paced environment, smoking may be construed to provide individual or personal gratifications.

Peer Influence in Young Adults' Initiation to Smoking



As much as our quantitative study provided interesting insights on young smokers' perceived meaning of smoking, it also reiterated their understanding of cigarette smoking as a risky health behaviour.

From the 'Daily Smokers' Perspectives on Smoking

Reasons



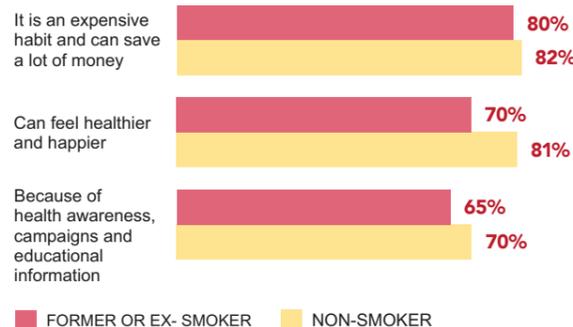
Among the regular and occasional smokers, 50%-67% had tried to quit smoking in the last 12 months. On an average, the smokers identified in this survey had tried to quit smoking at least four times. When asked about their intentions to quit smoking in the future, about 12%-36% indicated that they planned to quit in the following month, another 50%-66% had plans to quit sometime in the future and only 14%-22% responded otherwise.



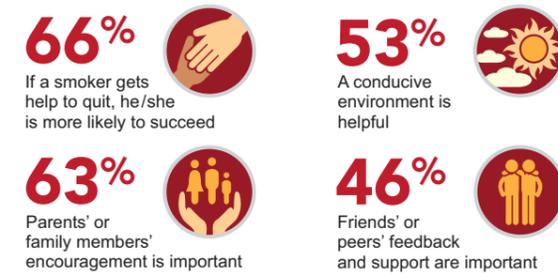
Common Personal or Social Attributes Found in the Following Subgroups

Smoker	Ex-smoker / Non-smoker
Feeling lonely, inferior	Having a great deal of self confidence
Feeling nervous, anxious or depressed	Ability to say no to smoking even if others around are smoking
Having difficulty in changing the habit	Having support and encouragement from peers, friends and family

Attributes Towards Smoking for Ex-smoker or Non-smoker



Personal/Environmental Factors with Impacts on Smoking Cessation or Modification of Smoking Behaviour



Guidelines/Policies with Impacts on Smoking Cessation or Modification of Smoking Behaviour



Summing up from the research findings, it appears that a holistic community approach which encompasses interventions at multiple levels (personal, environmental, social, programmes and policy), targeting smoking prevention and/or cessation would be required. While augmenting efforts in the area of health awareness campaigns will substantially increase the number of ex-smokers or non-smokers, goal-oriented group interventions are needed to curb the initiation of the smoking habit in youngsters, even before the habit can be established.

Furthermore, peer, family or parental involvement in risk factor identification and modification would have far-reaching benefits on this 'at-risk' population. As for the ex-smokers, measures to prevent a relapse after quitting would be meaningful.

In collaboration with the Girl Guides Singapore (GGS), the Singapore Cancer Society started the SCS Smoke-Free Ambassador Programme to nurture youths as young leaders and influence their peers to stay smoke-free. Since the launch of the programme in 2015, more than 50 Secondary schools and over 4,000 students have benefitted from this programme.

CALL IT QUILTS

Michelle Shi
Psychologist, Department of Psychology
Singapore General Hospital

Most smokers started smoking when they were teens. Some common reasons for initiating smoking are listed as below.

Parental smoking: When one of his/her parents is a smoker, a youth would believe that smoking is socially acceptable. In a survey conducted by the Health Promotion Board (HPB), a significantly higher percentage of youth smokers (58%) were reported to have at least one parent who smoked as compared to non-smokers (27%).

Peer pressure: A study conducted by HPB found that 90 per cent of youth smokers had at least one close friend who is a smoker.

Media influence: Youths may also view smoking as stylish and desirable if their favourite celebrity or movie character is a smoker.

Curiosity: As part of growing up, teenagers may think smoking is "cool" and they are keen to experiment with it.

Misinformation: Many smokers downplay the detrimental health effects of smoking and perceive smoking as a form of stress-reliever. Some youths also underestimate the addictive nature of nicotine and believe they can quit smoking anytime.

Smokers who adopt the combination method are 10 times more likely to quit smoking than those who quit by willpower alone. Smoking involves three aspects of

How to Quit?

Studies have shown the combination of counselling and medication is the most effective way of quitting smoking.

dependence: physical, psychological and behavioural dependence. Counselling addresses the behavioural and psychological aspects of quitting while medication aids to reduce withdrawal symptoms.

Behavioural therapies commonly used in smoking cessation are Motivational Interviewing (MI) and Cognitive Behavioural Therapy (CBT). Motivation remains a crucial factor in determining the success of treatment. MI aims to increase person's motivation levels and self-confidence in quitting by exploring smokers' thoughts and feelings related to the change in a non-judgemental way.

At Singapore General Hospital (SGH), the Smoking Cessation programme has helped 70 patients to quit smoking successfully in the past three years. SGH is currently planning to develop an inpatient Smoking Cessation Programme to help smokers to quit smoking during their hospitalization.

For more details call **6321 4377**.

Established in 1964, Singapore Cancer Society (SCS), a voluntary welfare organisation has positively impacted the lives of those affected by cancer.

It actively promotes cancer awareness in the community and offers cancer screening services [Mammogram, Pap Smear, Faecal Immunochemical Test (FIT)], welfare assistance, community based cancer rehabilitation, cancer support group activities and hospice homecare to support cancer patients and families.

OUR MISSION

To Minimise Cancer and Maximise Lives through effective programmes.

OUR VISION

To be Singapore's leading Charity in the fight for a cancer free community.

OUR PROGRAMMES

1. **Financial Assistance**
 - Cancer Treatment Fund (Cancer treatment subsidies for cancer patients)
 - Cancer Care Fund
 - Welfare Aid for needy cancer patients
2. **Free Cancer Screening**
 - Pap Smear Test (For Cervical cancer)
 - Health Education: Breast Self-Examination
 - Mammogram screening (For Breast cancer; CHAS Card Holders)
 - Faecal Immunochemical Test [FIT] (For Colorectal cancer)
3. **Public Education**
 - Cancer awareness campaigns
 - Cancer-related talks and forums
 - Cancer information (via website & telephone service)
4. **Cancer Support**
 - Cancer support groups and activities
 - Psycho-social services
5. **Cancer Rehabilitation**
 - Integrated, person-centred holistic approach with aim to return to normalcy
6. **Hospice Care Services**
 - Medical and psycho-social care for terminally ill cancer patients
7. **Cancer Research**
 - Cancer Research grants and awards
8. **Volunteers Programme**
 - Volunteering opportunities to suit people with different interests and skills

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SINGAPORE CANCER SOCIETY NEW VOICE CLUB SUPPORT GROUP

55 year old Mr Sim Teong Choon, had been smoking for 39 years before he quit at the age of 52. He used to smoke up to 2 packets a day.

Mr Sim started smoking after he got influenced by his peers at the tender age of 13. He tried to quit smoking twice, but each attempt ended up with him smoking more than he did before he tried quitting. He suffered from coronary heart disease at the age of 50 and underwent surgery. At the age of 52, he was diagnosed with throat cancer. He was told by his doctor that he would only have 6 months left to live if he did not undergo surgery. With a 50 per cent chance of survival rate, the father of 2 underwent radiotherapy and surgery to remove cancerous lymph nodes. After surgery, he quit smoking.



It was not an easy recovery for Mr Sim post-surgery. He faced occasional breathing problems and could hardly move his neck and shoulder as they felt tight and weak. He went for physiotherapy exercises to make his neck and shoulder muscles stronger and more flexible. Soon he was able to regain his shoulder and neck movement functions.

He is a member of Singapore Cancer Society's Support Group, New Voice Club. The New Voice Club consists of members who have had some form of laryngeal cancer and have undergone surgical treatment (laryngectomy). Rehabilitation aims to help patients learn how to speak again, with or without speech devices. The club renders emotional support to members and their families in coping with a 'new voice' after surgery. Speech practice sessions conducted by its members have enabled many to regain their ability to communicate with others. With this support, Mr Sim feels encouraged and is able to cope with this challenging phase of his life.

Using himself as an example, Mr Lim has been advocating anti-smoking to his younger colleagues in his workplace.

The New Voice Club consists of members who have had some form of laryngeal cancer and have undergone surgical treatment. After having their vocal chords removed, patients lose their voices completely. Rehabilitation aims to help patients learn how to speak again, with or without speech devices. It also reaches out to new patients and renders emotional support to members and their families in coping with a 'new voice' after surgery. Speech practice sessions conducted by its members have enabled many to regain their ability to communicate with others.

For more details call **1800-727-3333** or email supportgroup@singaporecancersociety.org.sg

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