



## Key Facts about Relaxation, Mindfulness, Meditation and Smoking Cessation

TIS teams are funded to carry out population health promotion activities. They are not funded to provide smoking cessation support. TIS workers still need up-to-date knowledge of the support available to individuals wanting to quit, as this can inform TIS population health promotion campaigns and educational activities. This factsheet provides an overview of how relaxation, mindfulness and meditation can support smoking cessation.

Relaxation, mindfulness and meditation techniques are suggested to help reduce stress and anxiety, enhance concentration, boost mood, and improve wellbeing. Sometimes referred to as mind-body practices (see Box 1), these techniques have been proposed as alternative approaches to supporting smoking cessation.

Relaxation techniques are often taught as part of a comprehensive behavioural support program for smoking cessation. Both progressive muscle relaxation and relaxation using breathing techniques have been shown to help people cope with withdrawal symptoms and ease stress by:

- decreasing heart rate;
- lowering blood pressure;
- slowing breathing.

There is also evidence that these techniques may help reduce cravings.

Mindfulness/meditation based smoking cessation programs are thought to help by teaching individuals to pay attention to smoking triggers, providing skills to address:

- negative emotional states (e.g., stress and anxiety);
- nicotine cravings;
- other symptoms of nicotine withdrawal (e.g., brain fog, fatigue, changes in appetite).

Types of mindfulness/meditation based programs include:

### **Mindfulness training**

Trains people to use mindfulness based meditation;

### **Acceptance and commitment therapy (ACT)**

Encourages people to accept their physical cravings, thoughts and feelings rather than fighting them, while making committed behaviour change;

### **Distress tolerance training**

Provides some ACT therapy then presents people who smoke with situations that make them want to smoke, allowing them to practise the skills learnt through ACT;

### **Yoga**

Increases awareness of breathing and encourages a connection between mind and body;

### **Tai chi**

Sometimes referred to as meditation in motion, promotes serenity through gentle movements, connecting the mind and body.

### **Guided Imagery**

Guided imagery has also been shown to support smoking cessation by teaching visualisation of desired goals and outcomes such as:

- reasons for quitting;
- benefits of quitting;
- strategies for dealing with smoking triggers;
- coping with cravings and withdrawal;
- staying quit.

Guided imagery is thought to work by:

- building self-efficacy;
- increasing confidence to coping with cravings;
- creating an image of being smoke-free (which may help prevent relapse).



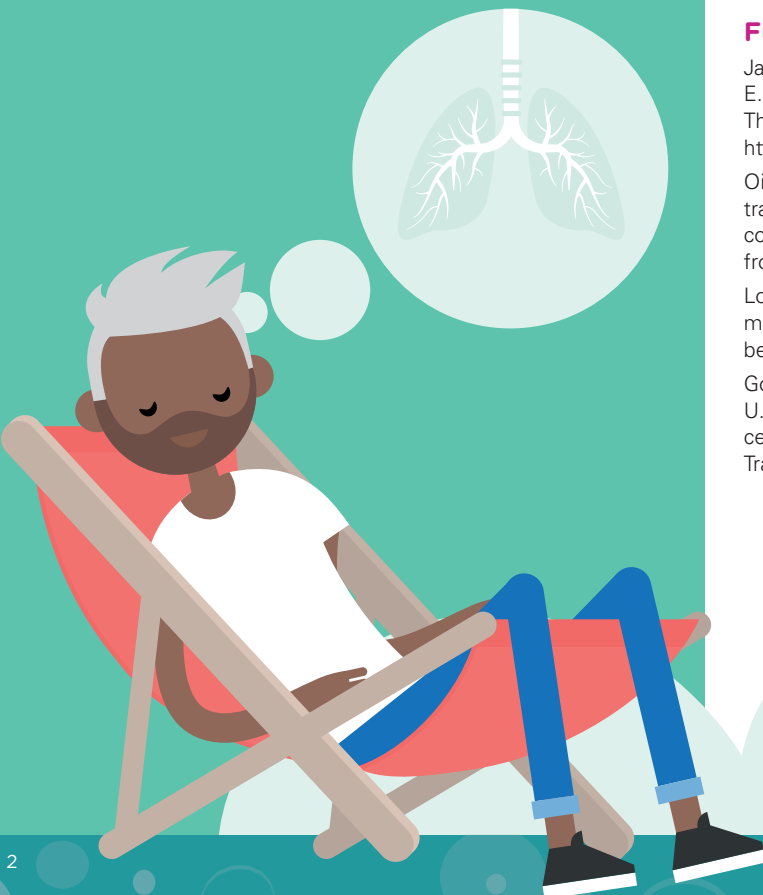


### Box 1: What are mind-body practices?

Mind-body practices are designed to strengthen the connection between our emotional, mental, and physical selves. Mind-body practices bring about a state of calmness, whilst the sense of personal control and ability to cope that they provide can be empowering. Mind-body practices are founded on the knowledge that thoughts, feelings and physical wellbeing are all connected. When our emotions or mental health are under pressure, our physical self can be affected. Likewise physical stressors can affect our mood and mental wellbeing. Mind-body practices are also known as psychological techniques, emotional therapies, or spiritual healing. Examples include:

- relaxation techniques focused on breathing;
- progressive muscle relaxation;
- guided imagery/visualisation;
- meditation;
- mindfulness;
- yoga;
- tai chi.

Relaxation practices focus on reducing physical sensations such as heart rate, breathing, and muscle tension, while mindfulness and meditation practices (including guided visualisation, yoga and tai chi) focus on shifting attention from inner thoughts to the external world. Mindfulness and meditation can also bring about a state of relaxation.



### What does the evidence say about mind-body practices for smoking cessation?

Evidence to support mind-body practices is mixed. Whilst there is some evidence to support the techniques described above, poor quality evidence means that it is not possible to say with any certainty that mind-body practices do or do not increase quit rates. This means that further research is required.

- A review of mindfulness techniques (Jackson et al., 2022) including meditation acceptance and commitment therapy (ACT), distress tolerance training and yoga was unable to identify a clear benefit of mindfulness based smoking cessation interventions for increasing smoking quit rates. However, a meta-analysis of trials (Oikonomou et al., 2017) indicates the benefits of mindfulness may be more related to prevention of relapse than increased quit rates. Oikonomou et al. reported that 25% of participants who received mindfulness training remained smoke-free for more than 4 months, compared to 14% of those who received usual care.
- A recent trial (Lotfalian et al., 2020) supports the idea that yoga increases successful smoking abstinence through the calming effects of yogic breathing. In this lab-based study mindfulness-based yogic breathing decreased participants cravings to smoke and nicotine withdrawal symptoms.
- A feasibility trial in the USA (Gordon et al., 2021) suggests that adding guided imagery smoking cessation to quitline services has great potential and could increase service reach. Whilst a larger trial is needed to establish effectiveness with confidence, Gordon et al. found that more time spent listening to guided imagery audio files was related to higher cessation rates. Among those not able to quit, participants who received guided imagery smoked fewer cigarettes than those in the control group.

### Further reading

Jackson, S., Brown, J., Norris, E., Livingstone-Banks, J., Hayes, E., & Lindson, N. (2022). Mindfulness for smoking cessation. *The Cochrane database of systematic reviews*, 4(4), CD013696. <https://doi.org/10.1002/14651858.CD013696.pub2>

Oikonomou MT, Arvanitis M, and Sokolove RL. Mindfulness training for smoking cessation: A meta-analysis of randomized-controlled trials. *J Health Psychol*, 2017; 22(14):1841-50. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/27044630>

Lotfalian, S., Spears, C. A., & Juliano, L. M. (2020). The effects of mindfulness-based yogic breathing on craving, affect, and smoking behavior. *Psychology of Addictive Behaviors*, 34(2), 351.

Gordon, J. S., Bell, M. L., Armin, J. S., Giacobbi, P. R., & Nair, U. S. (2021). A telephone-based guided imagery tobacco cessation intervention: results of a randomized feasibility trial. *Translational behavioral medicine*, 11(2), 516-529.