Understanding sensitisation

Our bodies are always reacting to the world around us. We are particularly tuned in to notice threat and trouble.

The decision to sound the alarm about a potential threat is based on factors like context, stress levels, and memory. This means our sensitivity to threats isn't fixed and the body doesn't always get it right.

A vicious cycle involving bodily stress and bodily learning can occur, where the body becomes more and more sensitive to possible threats. When this happens, symptoms start getting triggered by more and more harmless things.

Immune sensitization

Most of us know what it feels like to have the flu. This is an example of an immune response. The symptoms we experience with the flu are not directly caused by the flu virus particles. Instead, we are feeling the effects of our own immune system getting ready for battle.

This means, when we get immune symptoms, we are actually sensing the defenses of the body activating from the inside. For example, coughs and sneezes are defenses that work by propelling potential pathogens from our airways.

In normal functioning, immune symptoms like these get activated in an appropriate, helpful way. The immune system correctly judges whether triggers are harmful or not. After an acute infection or another short-term stress such as exercise, the immune response quickly turns down and the immune system returns to its peacetime role of renewal and repair.

But sometimes, after dealing with the original problem, the immune system gets stuck in a state of high alert. A cycle of sensitization can happen, where immune responses are generated by more and more every-day triggers. This seems to happen more often after some types of infection.

If you understand the role and function of the immune system, it is not surprising this can sometimes happen. Like the nervous system, the immune system is very sensitive to stress or threat either within the body or from the environment. The immune system is also able to learn and has memory.

Patterns of immune sensitization

Symptoms of immune sensitization can come in two patterns. One is where immune symptoms are reliably triggered by more and more things. When this happens, we can begin to feel like we are growing allergic to life. This is sometimes diagnosed as multiple chemical sensitivity or idiopathic environmental sensitivity.

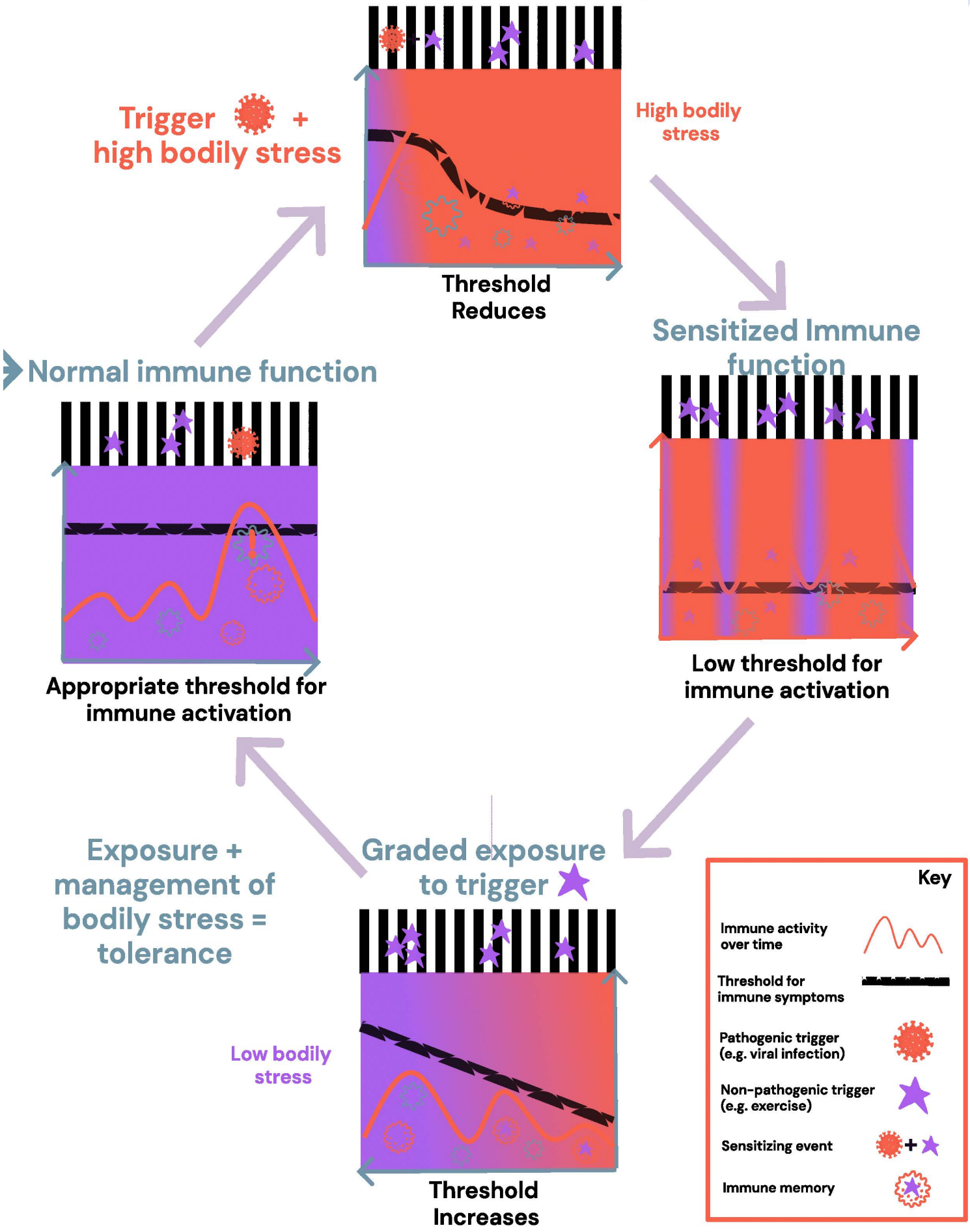
Reversing cycles of sensitisation

If you have been very worried about what your symptoms could mean, it is important to build up trust again. Developing trust in your body's ability to heal will help the body feel safe enough to relax. If you have specific triggers for your symptoms, you will need this trust to start the process of exposure so that your body can learn it can safely tolerate triggers again.

It may also be important to give your body cues that illness is over. Most bodily systems rely on bodily and environmental signals to learn and update. This is especially true for the immune system. Gentle movement, sunlight, regular nutritious meals, and spending time socialising with other people are ways we can signal to the body that illness is over.

If you have sticky symptoms that fit with a pattern of sensitisation, it's a good idea to work with a healthcare professional to come up with a personalized plan to build tolerance. The best plan depends on your body and what's causing your sensitivity. For example, if exercise triggers symptoms, a physical therapist can help come up with a personalized program of exercise that is safe for you. If certain foods or chemicals bother you, it might help to see a dietitian or an allergy specialist. If fear is getting in the way, a psychologist can support you to work through anxious feelings during exposures. If you have very severe symptoms, you might benefit from a team of different healthcare experts to help you tackle the problem from multiple directions.

Bodysymptoms.



We know from many years of research and clinical experience that principles of exposure therapy are helpful to train sensitised systems to tolerate non-harmful stimuli. Exposure therapy involves exposing your body to gradually increasing 'doses' of the trigger. This is used for example in some forms of allergy reprogramming, where small amounts of the substance are introduced to the immune system, followed by gradually increasing amounts. This way, the immune system can build tolerance and become desensitized.

Adaptive networks

It is not surprising that the immune system is in communication with the nervous system. Together they form the front-line defenses of the body's stress response.

In fact, all the stress responsive systems of the body crosstalk with each other. When one system of the body becomes sensitized, the other systems adapt and begin to show signs of sensitization themselves. Over time, if not interrupted, this can lead to a state of bodily distress, where multiple systems of the body are sensitized.

This crosstalk helps us understand why different functional symptoms are so often associated with each other. The mechanisms that underlie the symptoms are not independent. As one system adapts it causes the other systems to adapt in the same direction.

The cool part is that this doesn't just go in one direction. So, when you do something calming for one part, it often benefits other parts too. For example, if you learn how to relax the Autonomic Nervous System (ANS), sensitization in other systems (for example the immune system) will begin to dampen down too.

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