Stress Reduction Module #3:

The Stress Equation – What It Is, How It Works, and Why It Matters

### Stakeholder Sign Off

| **Name** | **Role\*** | **Initials** | **Date** |
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### Version Update Management

| **Editor Name** | **Purpose of Revision(s)** | **Stakeholder(s) Notified?** | **Date** |
| --- | --- | --- | --- |
| Mollie - IDEA for future V2 of this module | Reformat to in the absence vs presence of stress to reduce focus on negative & highlight positive impact of reducing stress |  |  |
| Mollie | Activity: Stress Response Visualization - sandwiched negative experience between 2 positive scenarios | no | 2024.11.3 |
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By the end of this module, you should have a clear understanding of:

* What stress is and how it affects your body and mind.
* How the **fight-or-flight** response works and why chronic stress can be harmful.
* The difference between short-term and long-term stress effects.

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#### **What is Stress?**

Stress is a natural response that helps you handle challenges. It’s your body’s way of preparing for action when you face something difficult. Stress can be both helpful and harmful, depending on how it’s experienced.

* **Positive stress (eustress)**: This type of stress is good for you. It motivates you to tackle tasks, stay focused, and overcome obstacles. Eustress can occur before a big presentation, during a workout, or while solving a problem. It pushes you to grow and perform better.
* **Negative stress (distress)**: When stress feels overwhelming or constant, it can cause distress. This type of stress is harmful and can trigger anxiety, frustration, and physical discomfort. Distress often happens when you face too many challenges at once or when stressful events pile up without a break.
* **Acute stress:** Short-lived or temporary stress from an immediate situation, like rushing to a reservation or presenting at a meeting, is considered acute. This invokes “fight-or-flight” in the body and causes brief bodily shifts like a pounding heart or sweating.
* **Chronic stress:** This is continuous or constant stress from things like an unfilling job, loneliness or financial issues. [🔗](https://www.ncbi.nlm.nih.gov/books/NBK541120/)

Over time, prolonged distress or chronic stress can impact your physical and mental health, leading to issues like sleep problems, chronic anxiety, and even serious illnesses.

#### **How Stress Affects the Body and Mind**

Stress impacts both your body and mind.

* **Mentally**, it can cause anxiety, irritability, and even burnout.
* **Physically**, stress can lead to headaches, tight muscles, and stomach issues.

When stress sticks around for too long, it can contribute to chronic health issues like heart disease or trouble sleeping.

#### **[EXPANDED OPTION] More on How Stress Affects the Body and Mind**

Stress impacts both your mental and physical health, often in ways you may not immediately notice.

* **Mentally**, stress can make it harder to focus, increase anxiety, or leave you feeling overwhelmed. You might become irritable, lose patience quickly, or feel exhausted mentally. Stress can also impact your memory and decision-making abilities, making it harder to stay organized.
* **Physically**, stress activates your body’s alert system, which can cause short-term reactions like headaches, muscle tension, or digestive problems. You might experience symptoms like an upset stomach, jaw clenching, or fatigue without realizing stress is the underlying cause.

If stress continues over a long period, it can increase your risk for chronic health problems like heart disease, diabetes, or depression. Long-term stress wears down your immune system, making it harder to fight off infections, and disrupts your sleep patterns, leading to chronic fatigue.

#### **Your Body’s Stress Response: The “Fight-or-Flight” Reaction**

When you experience stress, your body kicks into high gear with the **“fight-or-flight”** response. This response releases hormones like **adrenaline** and **cortisol** to prepare you for action.

* **Adrenaline** gets your heart racing and muscles ready to act.
* **Cortisol** helps your body manage stress but can cause problems when it stays elevated for too long (leading to sleep issues or weight gain).

#### **[EXPANDED OPTION] Stress Hormones: Adrenaline and Cortisol**

**Adrenaline**: Known for its “rush,” adrenaline causes your heart to pump faster, your breathing to quicken, and your muscles to tense. This prepares your body for immediate action, like running from danger or reacting quickly in an intense situation.

**Cortisol**: Cortisol is a critical stress hormone that plays a role in managing blood sugar, metabolism, and the immune response. When cortisol levels rise during stress, it helps your body maintain energy and manage the stressful event. However, if cortisol stays elevated due to ongoing stress, it can lead to issues like weight gain (especially around the abdomen), sleep disturbances, and a weakened immune system.

While the fight-or-flight response is helpful in short bursts, chronic activation of this system—due to long-term stress—can be harmful.

#### **[EXPANDED OPTION] The Science of Cortisol: What you Need to Know**

Cortisol is a key player in your body’s stress response, helping you manage stressful situations and regulate various bodily functions. However, when cortisol remains high for long periods, it can lead to negative health outcomes:

* **Sleep problems:** Elevated cortisol levels make it harder for your body to relax and fall asleep, often leading to poor sleep quality or insomnia.
* **Weight gain:** Chronic stress and high cortisol levels can lead to weight gain, especially around the midsection. This type of fat accumulation is linked to an increased risk of cardiovascular diseases.
* **Weakened immune system:** Over time, high cortisol levels suppress your immune system, making you more prone to infections, colds, and other illnesses.

Understanding how cortisol works and how stress impacts your body can help you manage these effects and reduce the risk of long-term health problems.

#### **Short-Term vs. Long-Term Stress Effects**

* Headaches, rapid heartbeat, or anxious feelings caused by **short-term stress**, usually go away once the stress passes.
* Persistent health problems, like high blood pressure, a weakened immune system, or depression, can be caused by **long-term stress** and are considered chronic diseases.

#### **[EXPANDED OPTION] Short vs Long-Term Stress: A More Detailed Look**

**Short-Term Stress Effects**:  
When you experience short-term stress (like giving a speech or dealing with a tight deadline), your body quickly reacts. **Common short-term symptoms** include:

* Headaches
* Muscle tension (e.g., stiff neck or shoulders)
* Irritability
* Rapid heartbeat
* Shortness of breath

These effects typically subside once the stressful situation is over, but frequent short-term stress can start to add up.

**Long-Term Stress Effects**:  
Chronic stress keeps your body in a prolonged state of alertness, leading to ongoing health issues. **Long-term effects** include:

* Digestive problems (like acid reflux or IBS)
* Frequent colds or infections
* Heart disease
* Depression or anxiety disorders

If stress goes unaddressed, it can severely impact your well-being. That’s why understanding and managing stress is so important.

#### **Why Understanding Stress Matters**

Understanding how stress works helps you take control of your health. By recognizing the signs of stress early, you can take proactive steps to prevent it from becoming a chronic issue. The more aware you are of how stress affects your body and mind, the better equipped you’ll be to manage it. In future modules, we’ll dive deeper into specific techniques to reduce stress and promote well-being.

## Module #3: Activities and Exercises

### Affirmation Activity: Reduce Stress about Stress

**Objective:** Stay centered as you learn about the potential negative impacts of stress.

**Instructions:** Learning about the detriment of stress on your body can feel alarming. It’s key to remind yourself that you are taking the steps to control your stress and improve your health. Affirmations are statements you can use to help improve positive thoughts and stay grounded in your efforts to reduce stress. See examples below of how or when to use them, and some statements to get you started - feel free to create a personal affirmation list that aligns with your goals!

**How/when to use affirmations**

* Write them in a journal.
* Repeat them in your head while you do the dishes or commute to work.
* Use them as a meditation before bed.
* Keep a list in your phone’s Notes app.
* Add them to sticky notes on your mirror or desk.

**Examples**

* I’m worth the time to take care of myself.
* I control what I can, and release what I cannot.
* I am prioritizing my health and wellness.
* I deserve self-care and healthy habits.
* I am capable of balancing my body and mind.
* My body is grateful for my efforts.

### **Quick Stress Break Activity**

Learning about stress and its effects can feel overwhelming. It’s important to acknowledge that exploring these topics can bring up many emotions and thoughts.

**Objective:** To quickly relieve stress or heaviness and reset your mind as you continue learning about stress.

**Instructions:**

1. **Find a Quiet Space**: Step away from your phone &/or computer for a moment.
2. **Deep Breathing**: Close your eyes and take 5 deep breaths. Inhale slowly through your nose for a count of 4, hold for 4, and exhale through your mouth for a count of 6.
3. **Affirm**: Finish with a positive affirmation like, “I am empowered to learn about how stress impacts me.” or “I choose to let go of stress.”
4. **Stretch**: Take a moment to stretch your arms overhead and release tension.

This quick activity can help clear your mind and re-energize in just a few minutes as you continue learning about stress!

### Reflection Activity: Enhance Awareness with Mood Tracking & Stress Journal

**Objective:** Recognize and track your stress triggers and responses throughout the day.

**Instructions:**

* For the next week, keep a daily stress journal.
* Each time you feel stressed, write down the situation, your immediate emotional and physical response, and how you handled it.
* At the end of each day, review your entries and note any patterns. Did certain situations cause the same response? Were some stressors more manageable than others?

**Reflection Questions:**

* What were some of your main stress triggers this week?
* How did your physical body respond to these stressors?
* Were there any common themes in your emotional or thought patterns when reacting to stress?

### **Assessment: The Stress Equation Quiz**

**Objective:** Assess understanding of key concepts introduced in the module, such as the definition of stress, the role of cortisol, and the short/long-term effects of stress.

**Instructions:** Answer the following multiple-choice questions:

1. **What is cortisol's role in stress? Correct answer: B**a) It helps you calm down during a stressful situation.  
   b) It regulates your body's physiological response, including energy use, during stress.  
   c) It has no impact on stress levels.  
   d) It is only released when you exercise.
2. **Which of the following is an example of positive stress (eustress)? Correct answer: B**a) Feeling overwhelmed by work deadlines.  
   b) Getting excited and motivated for a challenging workout.  
   c) Experiencing fatigue due to ongoing financial worries.  
   d) Having trouble sleeping due to stress.
3. **What is the "fight-or-flight" response? Correct answer: B**a) A mental strategy to avoid stressful situations.  
   b) Your body’s natural reaction to perceived danger.  
   c) A feeling of helplessness during stress.  
   d) A technique for calming down after a stressful event.
4. **Which of the following is a long-term effect of chronic stress? Correct answer: C**a) Brief headache  
   b) Increased focus and energy  
   c) Heart disease and weakened immune system  
   d) Rapid breathing

### **Activity: Stress Response Visualization**

**Objective:** Enhance awareness of your body's stress response by visualizing it in action.

**Instructions:**

* Close your eyes and imagine a pleasant experience in which you felt happy & calm. Notice how your body feels.
* Now, imagine a recent situation that caused you stress (e.g., a work deadline, a challenging conversation).
* As you visualize the stressful experience, imagine your body's immediate response. Where do you feel tension? Is your heart beating faster? Are any muscles tensing up? Are you holding your breath?
* Now, return to the pleasant experience. What changes? Do your shoulders or jaw relax? Does your heart beat slow down?
* After the visualization, jot down what you noticed. Compare your body's response during stress to how it felt when you imagined staying calm.