UNDERSTANDING DEPRESSION –
What is it? Why does depression happen?

Here's a model to help understand how depression happens in the brain: holistic psychiatrist Dr. Henry Emmons* (author of The Chemistry of Joy) uses the metaphor of a water cooler/container in the brain; this "water cooler" contains the substance that helps you to be happy and in a good mood (essentially serotonin and other mood-related neurotransmitters); if the level of serotonin in the "water cooler" gets too low, you start to show signs of depression (like some of the following: sadness/feeling down a lot, fatigue, insomnia or oversleeping, negative thoughts about yourself, hopelessness, changes in appetite, suicidal thoughts). There are things that help replenish the serotonin; and things that drain it out. It's important that these stay in balance.

•Genetics has a big effect on the size of your "water cooler" of serotonin – some people have a bigger "container" than others – things just tend to not get them down.

•Even people who have a whole lot of serotonin because they genetically have a big "container", over the course of a lifetime if three or four major stresses come at once, this can deplete the level of the serotonin. Experiencing a significant loss (like the loss of a job or big problems in school, the loss of a relationship partner, the death or significant illness of a family member) can be enough to make you vulnerable to depression even if the rest of your life isn't too stressful.

•If genetically you have a smaller container, it doesn't take as much stress as another person for you to get depressed, thus even more minor stresses may result in depression (UNLESS you're mindful of the size of your "container" and develop ways of keeping your container filled).

•Is your container sufficiently full? If you pay attention to early warning signs that your container is getting low, you can prevent the process of depression, or recover quickly.

•All of us have a genetic "weak link" we go to when we're stressed too much – (for some people, it's alcoholism, for others depression, cancer, heart disease, digestive problems, etc.).

Serotonin – what is it? Serotonin is a very prevalent hormone in the brain with a lot of functions. It's the chemical that most anti-depressant medications work on. Serotonin sustains our self-esteem, mood, our sense of ourselves, feeling secure in relationships; it also soothes us when things are difficult. People with low serotonin levels tend to be sensitive to rejection, have low self-esteem, their mood bounces around a lot or they're sad a lot; they can tend toward dependent relationships; they can be impatient/impulsive; anxious; have trouble sleeping; binge on alcohol or sugar; can be sensitive to light or changes in biorhythm. Women who have low serotonin levels tend to have bad PMS symptoms (carb craving, migraine headaches).

So why does depression happen? 5 main reasons:

1) Genetics – This is probably the biggest factor, 50% of the reason some people get depressed and others don't is due to genetics. It's worth knowing about it if there is a family history of depression in your family and accepting this – this doesn't mean you will definitely get depressed, but it does mean you have a predisposition to depression under excessive stress. If you have this predisposition, it is important to do more in the other factors that you can control so that you are less likely to become depressed.

2) Lifestyle/Stress –This is the most common cause of depression—ongoing, constant stress that we don't have a chance to really recover from. Stress is unavoidable. Our bodies are designed well to handle severe stress if we can recover shortly afterwards (think of animals' fight-or-flight responses to stress). If we don't have a chance to recover, that's when we get in trouble. Much of the stress in our society today is relentless, constant. Most of us don't take time to slow down, to take a 'Sabbath". 24-7 has become the norm. This is eroding our ability to sustain ourselves. We need to remind ourselves that all of nature adheres to cycles (for example, the seasons) – activity in nature is always followed by rest.

3) Situational factors – When you are in a low mood, small things seem big. And sometimes people experience huge life challenges or really big losses where it is normal to feel some depression; depression is part of the grieving process. You just don't want to get "stuck" in that process. That's when you might need some extra support to fill up your container.

4) Conditioning -- Early patterns we learn in life affect us – the family context you grew up in has a sort of "family brain chemistry" that you pick up on. This sort of sets your own baseline/norm of brain chemistry. For example, if you grew up in an abusive home or even just a home where your family was so busy they weren't able to pay close attention to how you were doing, it's harder for you to be resilient, and this affects how susceptible you are later on in life to stress. If you grow up in a supportive home where you were taught how to deal with challenges and emotions in a productive way, you are likely to have more resilience available to you.

5) Seasonal -- Some people get more depressed in the winter, this is something called Seasonal Affective Disorder or SAD. In the low-light conditions of winter in northern places like Minnesota, the brain produces more melatonin (which regulates sleep patterns). This kind of depression tends to have different symptoms (sadness/irritability; fatigued/sluggish; tendency to eat more; sleep more). Light therapy is the most effective treatment for this type of depression. Light therapy helps even with people who have depression other times of the year but get worse in the winter. Vigorous exercise (where you work up a sweat) is also helpful. Managing your sleep is especially important if you have SAD – you really need to be consistent about getting up at the same time each day (by 9am at the latest), and get only 7-8 hours of sleep per night.

COPING WITH DEPRESSION –

What helps you to feel better? What helps to keep your serotonin "container" full? What helps you to become more resilient to depression if you happen to have a genetically "smaller" serotonin container?

EXERCISE:

Short of therapy and medication, the most effective thing you can do for depression is to exercise. There is much research evidence for this now (one study compared regular exercise to Zoloft, and found that effects were almost equivalent for mild to moderate depression). You will need to exercise three times a week for 20-30 minutes, doesn't have to be aerobic, even walking will do it (anything rhythmic).

SLEEP

Try to get 7-8 hours per night (not more or less); get up at regular time each day. If you are having insomnia, it is important to develop good sleep hygiene and develop a calming bedtime routine.

ACTIVITIES

Outdoor activities in nature are very helpful (walking, biking, skiing). Doing calming things like a spiritual practice (meditation, prayer, etc.), listening to calming music, reading something positive, or serving other people can all be very helpful. It's very important to stay connected with relationships in your life even when you don't feel like it. "Act like you feel better than you do" and it will become a self-fulfilling prophecy.

Note: for a depression that is not serotonin-based (signs of this would be low energy, increased sleep, weight gain) vigorous exercise is important, and stimulating activities are recommended rather than calming activities.

THOUGHT PATTERNS

Learn to pay attention to the thought patterns that you go to automatically when your mood is low. Most of the time, these thought patterns only make depression worse. (Example: you may find yourself tending to be very self-critical when you are down, if you pay attention to these thoughts and keep thinking them they will make you feel even worse.) Learn to observe your thoughts; name when they are temporary, mood-induced, depression thoughts; and learn to manage them (don't stay focused on them, instead change your focus of attention to something more active or more positive).

It's useful to get an understanding of how mood affects your thinking – your perspective changes, you may become pessimistic, down on yourself. Learn to recognize that if you

wait, your mood lifts, and your thinking changes, you become more optimistic. If you start to believe the thoughts you have when your mood is low, it will only bring your mood down further. Learn to recognize, those are just thoughts, it's not the truth – don't buy into it. The thoughts then lose their power. Let go of the idea that you need to be fixed. Our nature is to be resilient – we need to step out of the way and let it happen.

NUTRITION

•For some of us it has to do with diet – how does the brain produce the chemicals it needs? Our bodies have to continuously produce more – the building blocks are found in the food we eat. Primary building blocks are amino acids (constituents of proteins). Thus, we need protein throughout the day (especially if the depression manifests with sluggishness, difficulty thinking clearly). (Examples of protein that you can eat for breakfast: eggs 2-3 times per week okay, egg whites; protein powders -- atablespoon or two mixed with juice – soy protein, rice protein, egg protein, whey protein – all available at health food stores.) B-vitamins are crucial – they help the protein get turned into chemicals (green leafy vegetables give us B-vitamins, but you need to eat them within 2-3 days of picking to get the vitamins; thus many people need to add a B-vitamin supplement).

•Insulin and sugar – many of us get in the habit of craving starches and sweets; people who have low levels of serotonin get a quick boost by foods high in sugar, and this becomes addictive. As soon as you eat sugar you get a temporary mood elevation – this becomes seductive on a subconscious level. The problem is – this causes blood sugar levels to be unstable. For a while you feel good, then you get spacy or jittery.

•Diet should be high in complex carbohydrates. "Simple sugars" are those converted quickly into sugar (sweets, OJ, bananas). Complex carbs are slow to digest (whole grains; root vegetables like carrots, potatoes, onions; legumes like beans and lentils).

*Adapted from a public talk given at Augsburg College in 2011 by holistic psychiatrist Dr. Henry Emmons, author of The Chemistry of Joy and The Chemistry of Calm, and former psychiatric consultant to Augsburg Center for Wellness & Counseling. See Dr. Emmons' website www.partnersinresilience.com.