

# MHA NEWSLETTER

## ANTIDEPRESSANT MICROBES IN SOIL: HOW DIRT MAKES YOU HAPPY

Prozac may not be the only way to get rid of your serious blues. Soil microbes have been found to have similar effects on the brain and are without side effects and chemical dependency potential. Learn how to harness the natural antidepressant in soil and make yourself happier and healthier. Read on to see how dirt makes you happy.

Natural remedies have been around for untold centuries. These natural remedies included cures for almost any physical ailment as well as mental and emotional afflictions. Ancient healers may not have known why something worked but simply that it did. Modern scientists have unraveled the why of many medicinal plants and practices but only recently are they finding remedies that were previously unknown and yet, still a part of the natural life cycle. Soil microbes and human health now have a positive link which has been studied and found to be verifiable.

### Soil Microbes and Human Health

Did you know that there's a natural antidepressant in soil? It's true. *Mycobacterium vaccae* is the substance under study and has indeed been found to mirror the effect on neurons that drugs like Prozac provide. The bacterium is found in soil and may stimulate serotonin production, which makes you relaxed and happier. Studies were conducted on cancer patients and they reported a better quality of life and less stress.

Lack of serotonin has been linked to depression, anxiety, obsessive compulsive disorder and bipolar problems. The bacterium appears to be a natural antidepressant in soil and has no adverse health effects. These antidepressant microbes in soil may be as easy to use as just playing in the dirt.

Most avid gardeners will tell you that their landscape is their "happy place" and the actual physical act of gardening is a stress reducer and mood lifter. The fact that there is some science behind it adds additional credibility to these garden addicts' claims. The presence of a soil bacteria antidepressant is not a surprise to many of us who have experienced the phenomenon ourselves. Backing it up with science is fascinating, but not shocking, to the happy gardener.

*Mycobacterium* antidepressant microbes in soil are also being investigated for improving cognitive function, Crohn's disease and even rheumatoid arthritis.

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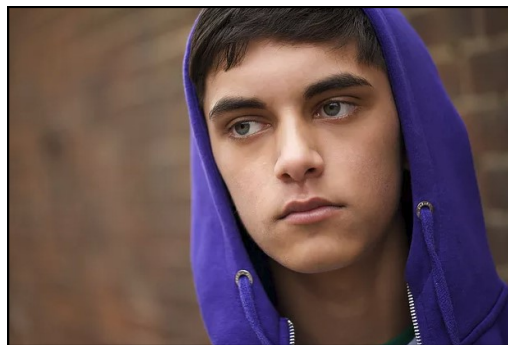
## WHY TEENS TURN TO SUBSTANCE USE

How do you cope when life gets stressful? Do you take a short jog to clear your mind? Immerse yourself in a hobby? Call a friend? Or do you perhaps turn to a substance, such as an alcoholic beverage, to "take the edge off"?

While life's pressures can be difficult for anyone to deal with in a healthy way, such struggles are especially difficult for teens. Because teens face the world with developing bodies and brains, they are not always prepared to make healthy decisions or avoid risks. For this reason, it is not surprising that a number of teens turn to substances, such as drugs and alcohol, to self-medicate emotional and psychological struggles and attempt to fit in among peers.

### What Does Teen Substance Abuse Look Like?

Currently, 18.6% of Cortland County teens from grades 7-12 have used alcohol in the past 30 days while 12.4% have used marijuana within the past 30 days (2016 YDS Survey). Such illicit substance use, which most commonly occurs with alcohol, marijuana, and prescriptions, is an issue for a number of reasons. One of the biggest concerns of substance abuse is overdose, which can lead to a rapid death if not treated promptly. Substance abuse can also lead to a variety of negative behavioral changes, such as lower perfor-



mance in school, increased moodiness and irritability, and a desire to avoid loved ones.

So then, why are teens using substances?

### Teens Biology and Hormones are Working Against Them

One of the answers lies in the simple biology of the teen brain. For instance, did you know that certain structures of the brain are not fully formed until our mid-twenties? One of these structures is the prefrontal cortex, the part of the brain responsible for managing impulses. Because this structure is not fully formed in teens, they

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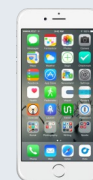


### **App(s) of the Month: SoberTool - Alcoholism and Addiction Recovery Help**

The SoberTool app is your smart companion for alcoholism and addiction recovery help. SoberTool helps keep count of clean and sober days and the moneys saved. Provides notifications of milestones and daily messages! And a search/locator tool to help find support meetings and/or an online recovery forum!

iPhone: <http://apple.co/2n0zKH5>

Android: <http://bit.ly/2n6FbG9>



### ***WHY TEENS TURN TO SUBSTANCE ABUSE continued...***

are more likely than other age groups to partake in risky behaviors. These behaviors can easily lead to illicit drug use.

Beyond brain development, hormones also play an important role in teens' decision-making. According to NIDA, hormones are the chemicals our bodies produce when we reach puberty (ages 8-14) that help us mature into adults. Unfortunately, hormonal changes don't just change us physically, but also affect us emotionally. For instance, because teens have an elevated level of cortisol, the "stress hormone", they can often be moody and stressed. Furthermore, have you ever wondered why teens like to stay up late and sleep in? It's because melatonin, the hormone that makes us sleepy, does not begin to increase in the teen body until at least 10:30pm. After this time, teens' melatonin does not decrease again until later the next day. This melatonin regulation means that teens may feel tired often or not get enough sleep, which can increase stress and decrease the ability to make good decisions. Overall, with all of these changes and developments occurring at once, it is no wonder that teens are more likely to turn to substances to deal with life's stresses.

### **Mental Health Problems Can Often go Undiagnosed in Teens**

In light of such instability, it is also not surprising that many teens go undiagnosed for mental health disorders. After all, isn't it natural for teens to be emotional and have trouble sleeping? Well yes, up to a point. The fact remains that teens can, and do, develop behaviors that go beyond normal adolescent moodiness. In fact, according to Clubhouse International, "50% of those who will ever be diagnosed with a mental disorder show signs of the disease by age 14..." (iccd.org). Of these cases, 35-50% go untreated in high income countries alone (iccd.org). Without proper diagnosis and treatment, teens are left to cope with mental health disorders on their own. Unfortunately, this neglect increases a teen's likelihood of turning to dangerous substance use as a form of self-medication.

But what does this mental health dilemma mean for Cortland County? How many of our teens are struggling with undiagnosed mental health disorders? According to the 2016 YDS Survey, 35.2% of Cortland County's adolescents from grades 7 to 12 report experiencing depressive symptoms. Another 9.9% have seriously considered suicide at least once in the past 12 months. Of those considering suicide, at least 5.4% have actually attempted it at least once within the past year.

### **Teens Have Misperceptions of What Their Peers Are Doing**

Beyond these mental health concerns, 27.1% of Cortland County teens believe that half or more of their peers used marijuana within the past 30 days. Additionally, 23.7% believe that half or more of their peers drank alcohol within the same time period. In reality, however, only 18.6% of students drank alcohol and 12.4% used marijuana within this time frame (2016 YDS Survey). Overall, the inaccurate belief that substance use is common and acceptable among peers may encourage teens to begin using drugs and alcohol. This misconception becomes even more encouraging if teens are looking for an escape from emotional and mental stress.

### **Helping Teens Develop Healthy Coping Methods**

Essentially, our teen years tend to create the ideal circumstances for drug use. Developing brains, new hormones, and potentially undiagnosed mental health disorders can all make one's teen years feel tumultuous and overwhelming. This tumult, paired with the belief that illicit substance use is common, may lead teens to use drugs and alcohol as a way to find relief from their daily struggles. Unfortunately, this use increases their risks of addiction, overdose, and possibly even death. For these reasons, it is important that we help our teens develop healthy coping methods when facing stress and pressure so that they might avoid substance abuse.

*By Adonica Mancuso, CACTC Intern*

*\*The 2016 YDS Survey is a Cortland County Survey of 14,023 7-12th graders in the Cortland Area*

### ***ANTIDEPRESSANT MICROBES IN SOIL: HOW DIRT MAKES YOU HAPPY continued...***

#### **How Dirt Makes You Happy**

Antidepressant microbes in soil cause cytokine levels to rise, which results in the production of higher levels of serotonin. The bacterium was tested both by injection and ingestion on rats and the results were increased cognitive ability, lower stress and better concentration to tasks than a control group.

Gardeners inhale the bacteria, have topical contact with it and get it into their bloodstreams when there is a cut or other pathway for infection. The natural effects of the soil bacteria antidepressant can be felt for up to 3 weeks if the experiments with rats are any indication. So get out and play in the dirt and improve your mood and your life.

Grant, B. L. (2017, March 13). Soil Microbes And Human Health – Learn About The Natural Antidepressant In Soil. Retrieved March 20, 2017, from <https://www.gardeningknowhow.com/garden-how-to/soil-fertilizers/antidepressant-microbes-soil.htm>



## "THE COLLEGE EXPERIENCE"

College is exciting - finding out who your roommate is, shopping for a new laptop and dorm room essentials, making new friends, going to football games and of course trying new things.

College is a time of transition in a young adult's life, meeting new people and saying goodbye to close friends and family. It can be stressful and overwhelming, especially during the first six months of freshman year, where you are learning to juggle school, work, friends and family. Dealing with these changes during the transition from adolescence to adulthood can trigger depression during college in young adults. Depression is common among college students; about 44 percent of American college students report having symptoms of depression. But do those students seek help?

**About  
44%  
of college  
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symptoms of  
depression**

You shouldn't wait for depression to go away by itself or think you can manage it. College students are busy but need to take the time out of their schedule to get help, because depression may only get worse if left untreated and can even contribute to other health problems. Two thirds of students who are struggling with depression do not seek treatment according to the American College Health Association Spring 2015 assessment.

College years are also some of the most popular years to experiment with alcohol. Drinking at college has become a ritual that students often see as part of their college experience. The widespread availability of alcohol, interacting with new peers, being more sociable, and the lack of adult supervision are all factors of college life that can intensify the likelihood of alcohol use.

When students are feeling depressed they can view alcohol as a stress reliever, even sometimes believing the substance is making life easier. But alcohol is a depressant, so in reality it often worsens symptoms of depression.

According to the College Alcohol Study (CAS) by Harvard School of Public Health, about 82 percent of the students surveyed who reported poor mental health/depression drank alcohol regularly, and students with poor mental health/depression were also more likely to report drinking and drinking to get drunk than those who did not report any issues with poor mental health/depression. It is easy for students to get caught up in this terrible cycle of drinking to ease their symptoms of depression, while in reality making them worse.

About 20 percent of college students already meet the criteria for Alcohol Use Disorder, which is a medical condition in which drinking causes distress or harm. According to the National Institute on Alcohol Abuse and Alcoholism, between 1.2 and 1.5 percent of college students indicate they have tried to complete suicide within the past year due to drinking or drug use. Most college students report they are likely to tell a friend or their

parents before, or instead of, seeking help from a professional according to the National Alliance for Mental Health on Campus. For students experiencing a mental health problem before entering college, it is recommended that parents or caregivers discuss mental health realities and complications for students, including the increased presence of alcohol during the college years. Parents and or other caring adults in their lives may want to encourage them to visit the campus and talk to students, peer counselors or faculty about the supports available on their particular campus. Many colleges are even offering a "college 101" class for incoming freshman informing them on all of the available services on campus including counseling centers. These classroom sessions help to educate students on what the counselors do but also make students feel more comfortable with the idea of going to the counseling center.

The counseling services most colleges provide give students an opportunity to explore a variety of concerns and problems that may arise. These services are designed to help students with a number of issues and improve their ability to be more effective and successful in their academic and personal lives. Counseling services will even refer students off campus for community resources, helping to set up appointments if students need long-term or more intensive services.

In addition to seeking treatment, parents and caregivers can be supportive by encouraging students to take it one step at a time, avoiding overextending themselves. Getting daily exercise, eating well, getting enough sleep and avoiding alcohol and drugs is good advice for any college student. Lastly try to encourage the students in your life to have fun and enjoy the college experience. Getting treatment at the earliest sign of a problem will help relieve symptoms and help students to succeed in college.

By Mary Baughman, Community Health Intern at Seven Valleys Health Coalition



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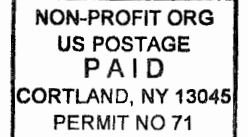
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**color** as a PDF, please send your full name and email to:  
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## Community Events & Support

*Save the Date:*

**March in May for Mental Health**

**May 24**

**More details to come**

**Cortland LGBT Men's Group (Monthly)**

- Where: Cortland LGBT Resource Center, 73 Main St.
- Contact: (607) 756-8970

**Parents & Change Support Group (Monthly/2nd Monday)**

- When: 6:00 to 7:00 PM
- Apr 10      May 8      Jun 12      Sep 11
- Oct 9      Nov 13      Dec 11
- Where: 90 Central Avenue
- Contact: Beckey Trippp ([parentsandchange@yahoo.com](mailto:parentsandchange@yahoo.com))

**Caregivers Support Group (Monthly)**

- When: 4th Thursday at 12:30 PM
- Where: County Office Bldg (Dining Rm.)
- Contact: The Area Agency on Aging @ (607) 753-5060



If you have an upcoming community event or article you would like considered for admission to the MHA Newsletter, send your submission to [ben@sevenvalleyshealth.org](mailto:ben@sevenvalleyshealth.org) by the 7th of the month prior.

**Disclaimer:** The information presented here does not constitute professional medical advice. Individuals respond to treatment for mental health conditions in different ways, and treatment plans often need adjustment over time. Patients should work closely with their doctor and other health professionals in order to achieve optimal control of symptoms.