

SELF-ESTEEM NEEDS

Substance Use and Your Body

Making Healthy Choices for Your Mind and Body



Artwork by Hailey Choi

AUTHOR BIOGRAPHIES

Christina Holmes, MAT, Certified Prevention Specialist, is the regional school health coordinator for Clinton, Eaton, and Ingham Counties. She works in the Prevention Program Services department at the Eaton Regional Education Service Agency (RESA), serving schools and families by implementing several grant programs. Christina taught middle school and high school for eight years before moving to Eaton RESA. She believes in the power of education and has a passion for ensuring young people have the knowledge and skills to lead a healthy life.

What's Christina's favorite physical activity?

My family loves walking and hiking with our Bernese Mountain Dog, Charlotte, especially at The Ledges here in our hometown, Grand Ledge.

Kelly Johnson-Sager, MAE, Certified Prevention Specialist, is the regional school health coordinator for the seven counties of the central Upper Peninsula. She works as a health education consultant for the Marquette-Alger RESA and coordinates grant programs on prevention, social-emotional learning, and mental health. Kelly has been with this organization for 10 years and is passionate about working with students and adults to promote overall health and well-being.

What's Kelly's favorite physical activity?

My family is a basketball family. We also love to hike and snowshoe.

Prevention superheroes

Did you know that you are a prevention superhero for your child? You can be the strongest protector against risky behaviors for the children you love. You can choose to live a healthy lifestyle and establish expectations that they do the same. Making healthy choices is not always easy. Adults and children can both face difficult decisions multiple times a day that might affect their health. These choices may be as simple as choosing to eat an apple instead of potato chips for your evening snack or deciding to go for a walk with your family/friends instead of using social media.

Sometimes healthy choices are more complicated, such as choosing not to misuse substances. There are factors in every person's life that can put them at higher risk of substance use. There are also factors that can protect them from making risky decisions to use substances. Regular physical activity is a protective factor against substance misuse and abuse. The protection from routine physical activity becomes even greater when we do it with the people we love.

[Substance use heavily influences our ability to exercise and play sports.](#)

The chart below lists how substances affect our ability to be physically active.

ALCOHOL	MARIJUANA	VAPING
<ul style="list-style-type: none"> • Decreased strength • Cramping • Pain • Dehydration • Poor balance • Slower reaction time • Lower endurance <p>Read about the impact of alcohol on athletic performance. This information comes from the California State University Prevention Department.</p>	<ul style="list-style-type: none"> • Poor reaction time • Reduced coordination • Poor concentration • Increased fatigue <p>This article from ESPN describes the potential dangers of marijuana.</p>	<ul style="list-style-type: none"> • Increased blood pressure and heart rate • Decreased lung capacity • Increased risk of lung infections • Possible physical injuries from burns and explosions • Altered mental capacity <p>Read more about the effects of vaping on athletes in Sports Medicine Reports.</p>

For help answering your child's questions about substance use, please see the Substance Abuse and Mental Health Services Administration ["Talk. They Hear You."® guide](#).

Although it may feel like "Everyone is doing it," it is important to remind young people that "Most teens don't" use alcohol and drugs.



3 in 4

high school students in Michigan reported that they are not currently drinking alcohol.



4 in 5

high school students in Michigan reported that they are not currently using electronic vapor products



4 in 5

high school students in Michigan reported that they are not currently using marijuana



Substance Use on the Rise in Michigan: Vaping Products

1 in 5

high school students reported that they currently use electronic vapor products.

nearly 1/2

of Michigan's high school students, reported that they have tried an electronic vapor product.

Source: 2019 Michigan Youth Risk Behavior Surveillance System

Research shows that for middle and high school students, more exercise is associated with less substance use.

Risk and protective factors

We all have things that can put us at greater or less risk of behavioral and health issues. These factors can be biological, psychological, or environmental. The good news is that it's possible to minimize many of the aspects that can contribute to youth substance use or mental health challenges by reducing risk factors and emphasizing protective factors. You can learn more about risk and protective factors [here](#).

Risk and protective factors play core roles in health outcomes. One of the most important protective factors your child has is you, an adult who they can trust and depend on. As a trusted adult, you play a key part in setting behavioral expectations for your child. These expectations can include avoiding substance use and developing a lifelong appreciation for taking care of one's body and mind by participating in physical activities. School sports and clubs can help delay or prevent substance use. The longer a person can delay first use, the more developed the brain will be and the less likely they are to become addicted.

[Wait 21](#) teaches youth how to follow a healthy lifestyle and avoid behaviors that can lead to [addiction](#). Participating in sports is a [protective factor](#) that can keep youth from engaging in substance use; it can grant children a sense of purpose and belonging. It can also promote resiliency among kids who have had [adverse childhood experiences](#). As an involved adult, you're a protective factor against substance use in your child's life.

The next three sections of this module give you and your family tips for making healthy choices for your mind and body that include moving together, thinking together, and being together!

RISK AND PROTECTIVE FACTORS

Preventing Substance Misuse



RISK FACTORS

Aggressive behavior in childhood
Lack of parental supervision

Poor social skills
Community poverty

Drug experimentation
Availability of drugs at school



PROTECTIVE FACTORS

Good self-control
Parental monitoring and support

Positive relationships
Neighborhood resources

Good grades
School anti-drug policies

MOVE

Choosing to be physically active with friends and family will benefit your mind, your body, and your relationships. [Studies](#) have consistently shown that “virtually any form of exercise, from aerobics to yoga, can act as a stress reliever.” Exercise increases the production of feel-good chemicals in the body, like endorphins and dopamine. Regular physical activity is also a healthy coping strategy for managing anxiety and depression.

Physical activity can release chemicals in the body that boost your mood. The positive feelings that come from exercising can cause a “natural high.” [Mental health experts](#) say that “...when people accomplish something physical, such as increasing the number of sit-ups they can do, they believe they will be able to accomplish other goals and have better control over what happens in life. This gives them a higher expectation of success and a better mental outlook.” Exercise can also produce a reduction in anxiety and tension that lasts for a couple hours. You can use this [activity toolkit](#) to get moving while learning about making good choices and avoiding substance use.





Adolescent brain development

Although the brain has reached 90–95% of its size by the time a person is six years old, a great deal of brain development and remodeling occurs as children grow. The brain actually doesn't develop completely until the mid-twenties. The prefrontal cortex is the decision-making part of the brain. It's also the last part of the brain to develop. Adolescents' decisions can be driven by emotions and impulses because the adolescent brain relies on the amygdala; you can read more [here](#).

Basically, the adolescent brain is not yet fully developed. Poor health decisions can affect brain growth. Substances influence the adolescent brain differently than the adult brain, and [using substances can harm brain development](#). Take marijuana as an example: the receptors in the adolescent brain are still growing, and using marijuana affects this growth. It can hurt cognitive and emotional development. In fact, [one study](#) found that “teens who regularly use marijuana lose an average of 5.8 IQ points by the time they reach adulthood.”

Many healthy behaviors such as sleep, family discussions, and regular physical activity support adolescent brain development. [Watch this video](#) to discover more. Positive routines, like exercising together, help youth as they make decisions to keep their mind and body healthy. Fun fact: practicing mindfulness adds gray matter to the prefrontal cortex. This means that being mindful assists in adolescent brain development. This practice can be as simple as teaching your kids to take two [deep breaths](#) before reacting to a tough situation. You could also use activities like [yoga](#) to help them learn to be present.

Substances and the brain

According to the [Cleveland Clinic](#), “dopamine is known as the ‘feel-good’ hormone. It gives you a sense of pleasure. It also gives you the motivation to do something when you’re feeling pleasure.” Dopamine is part of the body’s reward system. Our bodies release dopamine when we exercise.

Using alcohol, tobacco, or drugs also releases dopamine. For instance, using marijuana or nicotine releases large amounts – more than our bodies normally make on our best days. The body gets used to this huge release of dopamine from the drug and eventually stops making its own. When a person uses drugs regularly, their body starts to crave these substances. Drugs become part of a daily routine. The person's body depends on the drugs to produce dopamine. Physical activity is known to help with substance misuse prevention, reduction, and recovery. [Studies](#) have shown that intense physical activity can be an effective treatment for substance use disorder. Physical activity helps us create our own dopamine.



GET YOUR DAILY HAPPINESS CHEMICALS

What are the Happy Chemicals?

DOPAMINE

- Enables motivation, learning, and pleasure
- Gives you determination to accomplish goals, desires and needs

OXYTOCIN

- Feeling of trust, motivates you to build and sustain relationships
- Known as the "Cuddle or Love Hormone," plays a role in bonding

SEROTONIN

- Feeling significant or important among peers
- Calm form of accepting yourself with the people around you

ENDORPHINS

- Releases a brief euphoria to mask physical pain
- Response to pain and stress

How Deficiency Affects You

- Procrastination
- Low self-esteem
- Lack of motivation
- Low energy or fatigue
- Inability to focus
- Feeling anxious
- Feeling hopeless
- Mood swings

- Feeling lonely
- Stressed
- Lack of motivation
- Low energy or fatigue
- Disconnect of relationships
- Feeling anxious
- Insomnia

- Low self-esteem
- Overly sensitive
- Anxiety/panic attacks
- Mood swings
- Feeling hopeless
- Social phobia
- Obsession/compulsion
- Insomnia

- Anxiety
- Depression
- Mood swings
- Aches or pains
- Insomnia
- Impulsive behavior

How to Increase Happiness Levels

- Meditate
- Daily to-do list
- Long-term goals
- Food rich in L-Tyrosine
- Exercise regularly
- Create something: writing, music or art

- Physical touch
- Socializing
- Massage
- Acupuncture
- Listening to music
- Exercise
- Cold shower
- Meditate

- Exercise
- Cold shower
- Sunlight
- Massage

- Laughter/crying
- Creating music/art
- Eat dark chocolate
- Eat spicy foods
- Exercise/stretching
- Massage
- Meditate

Adapted from Mind My Feelings

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Thinking together about how substances affect the body can help prepare youth to make healthy decisions for their physical and mental well-being in the future. Children and adolescents want to know what their parents think about alcohol, tobacco, and drugs. Educate yourself on substances and how they affect the body. You can learn about drug trends at trusted websites like [GetSmartAbout Drugs.gov](https://www.getsmartaboutdrugs.gov) or [Prevention Network](https://www.preventionnetwork.org). Visit [Talksooner.org](https://www.talksooner.org) to get talking tips designed for all age groups, from early childhood to young adulthood.

Having conversations about long- and short-term goals can help children think about things they want that might be more difficult to obtain if they use substances. Help your child consider how they can work towards those goals while refusing tobacco, drugs, and alcohol if someone offers any to them. Practice these refusal skills with your child.

Think Together: Practice Refusal Skills

Refusal Skill Strategy	If someone said . . .	You could say . . .	Now you try: Work together to write one way you could refuse.
Suggesting another activity	Hey, want to go to Jamie's house tomorrow night? His parents are going out of town and I heard someone's brother is buying beer for the group.	Let's go to the Y to play basketball instead of going to Jamie's party.	
Giving a reason	Get over here! You have to try these Pot Tart edibles we swiped from my dad. They are so crazy good, but eat them slowly. They are strong!	I don't want any, thanks. I have a game tomorrow and want to feel my best.	
Stating your feelings and opinion	You want a hit of this? It's Juul's Mango pod. So good. My favorite vape flavor ever.	I don't want to vape because I don't want to put chemicals in my body, and I don't like the way it makes my head feel fuzzy.	
Simply say a direct no	Here, have one of my mom's pills. They will help your headache go away so fast!	No, that's not for me.	

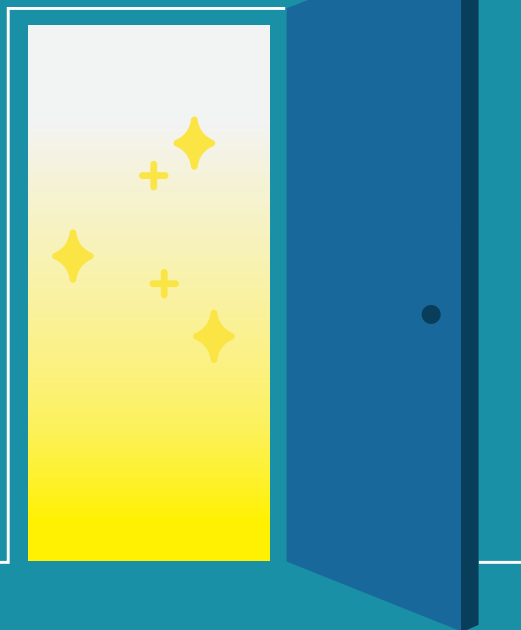
Practicing refusal skills together will give your child opportunities to think through ways to say "no". This activity will come in handy if they find themselves in a situation where someone is offering them drugs or alcohol. Practice can also enhance your child's mental and emotional health.



Just spending time together can influence children's choices. Adult caregivers are role models for children. You should know that your views on drugs and alcohol will affect how your kids feel about these substances. The same holds true for the emphasis you place on being active and leading a healthy lifestyle. Try to talk about your expectations around drugs, alcohol, and being safe apart while you're being active together. You can bring up these topics as you go for a hike in the woods or play at a park. Usually, kids are more likely to share when they're distracted by other activities and do not have to make eye contact. Just remember to be calm, keep the conversation age-appropriate, and share how drugs can damage youth's developing brains and bodies. Watch this brief video with your child to help them understand how people become addicted: [Wait21 Understanding Addiction as a Disease.](#)

Have conversations early with your child about substances and your family expectations. Consider taking advantage of every day "door openers" that you or your child may notice to start conversations:

- A billboard for a cannabis shop
- Special displays for beer at the grocery store before a big game
- Someone smoking cigarettes in a movie
- Underage characters in a movie choosing not to use substances at a party
- Characters on a TV show using substances and choosing not to drive
- An athlete talking about the healthy routines they use to prepare for competition



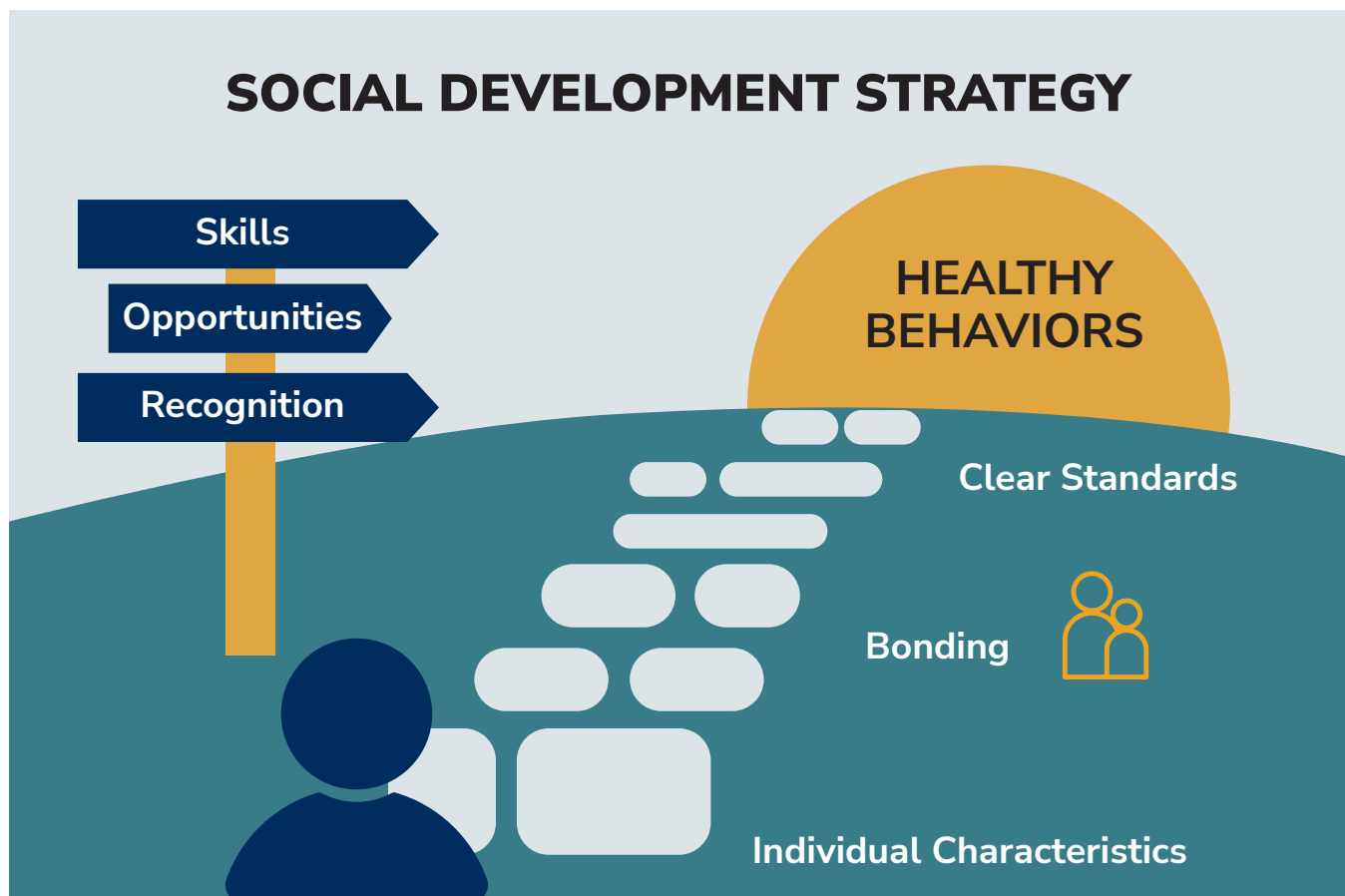
Source: wait21.org

Staying involved in your child's life is one way to help keep them safe from the dangers of substance use. Encourage your kids to take part in hobbies, sports, and clubs that interest them. These activities offer chances for positive interaction and better self-esteem. [Know who your child's friends are](#) and where they spend their time. Kids who have friends who use drugs are more likely to try drugs themselves.

Celebrate [Red Ribbon Week](#): it's the largest drug-use prevention campaign in the United States. As a family, you can help organize events such as a 5K race or other activities through your child's school. Here is a list of [Natural High Activities](#) to get this conversation started with your child.

Social Development Strategy: Building skills to avoid substance misuse

The [Social Development Strategy](#) is a framework to promote positive youth development. It organizes protective factors into a simple strategy for action. The model works by first giving a child the knowledge and skills they need to be successful, then providing the child opportunities to practice those skills, and finally recognizing and praising the child's effort and improvement when using them. This process can strengthen the bond between you and your child. It also reinforces desired healthy behaviors, including avoiding substance use.



Adapted from Utah DPC

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You can integrate physical activity when using the Social Development Strategy with your child. To begin, choose a physical activity that you would like to do or learn together. It could be something like swimming, biking, push-ups, paddle boarding, dancing, or joining a sports team. Work on teaching your child those skills. If you can't participate, then be their biggest cheerleader as they learn from someone else. Whatever the physical activity is, your child will need plenty of opportunities to participate in it. Set aside time for them to practice – or better yet, join them when they do. Help your child set achievable goals related to their chosen activity. Be sure to provide lots of encouragement as they work towards their goals.

Young people who do a sport or physical activity are less likely to use drugs. A [study](#) showed that “participation in sports reduced the risk of overall illicit drug use, but particularly during high school.” Advocating for physical activity and a healthy lifestyle makes you a protective factor for your child. You are one of the strongest shields against risky behaviors for the kids you love.

Resources for learning more about substances and substance misuse:

[Join Your Local County Coalition to Prevent Substance Misuse](#)

[Drugs: What Parents Need to Know from Kids Health](#)

[Chippewa Valley Coalition for Youth and Families](#)

[Learn how to Safely Dispose of Prescription Medications](#)

[My Life, My Quit](#)

[Parents Against Vaping E-cigarettes](#)

[Talk Sooner](#)

Now it's time to practice the skills that you've learned in this module. To get started, take the 20-day INPACT Substance Use and Your Body Activity Challenge.

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20-day InPACT Substance Use and Your Body Activity Challenge

The 20-day challenge aims to enhance your family's ability to activate your happiness chemicals through physical activity. Studies suggest that it takes 21 days to form a habit and over 90 days to establish a lasting lifestyle change. Our hope is that by completing the 20-day Substance Use and Your Body challenge, your family will continue practicing the most effective activities until they become a lasting and positive habit.

	Day 1	Day 2	Day 3	Day 4	Day 5	Bonus!	Reflect
Week 1 Focus: Increasing Dopamine	Develop a plan to complete regular weekly exercise with your family! Check out these free templates to help make a schedule.	Meditation: find 5- 10 minutes to sit quietly and focus on your breathing. Check out more meditation activities .	Food rich in L- tyrosine helps with dopamine production! Try eating fish, almonds, bananas, yogurt or cottage cheese today.	Help an elderly neighbor or family member with some cleaning or yard work today! Staying active and helping out will feel great!	Take your dog/ pet out for a walk or ask a friend if you can borrow their dog. The happiness and excitement of animals is contagious!	Create a to-do list for your weekend, including being active! It will feel great to cross completed items off your list!	Reflect on which activity from this week made you feel the best and make it part of your regular routine!
Week 2 Focus: Increasing Oxytocin	Be intentional about giving someone in your family a hug today!	Go for a walk with a friend or a family member. Just spending time with others can improve your mood!	Listen to your favorite music while being active. Notice how the music makes you feel.	Try taking a cool shower today instead of a hot one. This can invigorate your body and give you energy!	Organize a yard game night, with games like ladder ball, cornhole, badminton, sidewalk chalk, and other DIY games .	Have a water balloon fight or run through the sprinkler. This is fun for kids and adults!	Reflect on which activity from this week made you feel the best and make it part of your regular routine!
Week 3 Focus: Increasing Serotonin	Sunlight can boost serotonin levels! Try to walk, listen to music, play cards, or meditate outside for 15 minutes today!	Massages can boost serotonin levels. Try making a family shoulder massage train and give quick 2-minute massages!	Several foods can boost serotonin: eggs, cheese, turkey, nuts, salmon, tofu, and pineapple. Try to eat some of these this week!	Exercise is a great way to boost serotonin levels. Try this fun 8-minute family fun cardio session	Pair physical activity and sunshine to boost serotonin levels! Run outside, play soccer, hit golf balls, or go for a swim today!	Thinking about happy moments can boost your mood. Share favorite family memories and pictures at dinner!	Reflect on which activity from this week made you feel the best and make it part of your regular routine!
Week 4 Focus: Increasing Endorphins	start with some stretching to increase endorphins by following this Yoga and Stretching routine .	Being creative through art or music increases endorphins. Doodle on paper while eating a meal as a family tonight!	Eating releases endorphins into the brain. Spicy foods may increase this! Try out these spicy veggie wraps .	Physical activity boosts endorphins, especially high intensity interval training (HIIT) workouts. Try out this kid-friendly HIIT Workout .	Eating dark chocolate (yum!) can boost endorphins. Try making these chocolate covered bananas .	Laughing boosts endorphin levels. Play Pictionary or Charades as a family to get the laughter started! Try using this word generator .	Reflect on which activity from this week made you feel the best and make it part of your regular routine!