

First-ever Middle School Youth Congress gets lesson on drug addiction

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GRAND ISLAND — It's all about the brain.

When people do things they enjoy -- whether it be roller skating, playing basketball or talking to friends -- positive chemicals are released into the brain.

Endorphins, for example, have been linked to the so-called "runner's high," when sustained exercise makes people feel good as endorphins start coursing through the body.

Serotonin is a mood controller, especially for things such as anger and aggression.

As for dopamine, it affects the pleasure centers of the brain.

Chuck Matson of the Omaha Police Department told members of the first-ever Middle School Youth Congress that it's great when such chemicals are released naturally into the body.

He said it can be very bad, however, when a person abuses -- not uses -- drugs to stimulate those different parts of the brain.

Matson was among speakers at the event, which was sponsored by the Central Nebraska Council on Alcoholism and Addictions on Wednesday at College Park.

For people who need prescription drugs for conditions such as depression or attention deficit hyperactivity disorder, Matson said, today's pharmaceuticals are wonderful. They merely help the chemicals in the brain achieve what should be their normal state or balance.

But those drugs don't know whether they are going into a person who doesn't need them or a person who does, Matson said. They will work exactly the same in either case.

Matson said that's how an addiction occurs.

Any drug will react with certain receptors in the brain, he noted. Initially, there is a positive effect as a person feels good from taking the drug.

But with repeated use, a drug will have less effect, leading the person to use the drug more in an attempt to get the same initial positive effect. That is addiction.

Attempting to stop using the drug will create negative effects, because a person's brain chemicals don't simply fall back to normal when a person stops the drug abuse, Matson said. The brain chemicals actually fall into negative territory.

Matson said that pattern is true for both adults and young teens or preteens. But he said the effect of drugs on young people is much greater because their brains are still developing.

The younger the person uses a drug -- any drug, including alcohol -- the more likely he or she is to have problems with addiction later in life.

Matson used two terms to describe that phenomenon: Peter Pan and brain freeze. He noted that, if people use drugs when their brains are still developing, they often will permanently alter the structure of that brain.

He showed a brief film clip of a 22-year-old former meth user who had a positron emission topography, or PET, scan and was told she has the brain of a 50- to 70-year-old who had suffered multiple strokes.

He asked the students to consider what that young woman's brain might look like in another two to three decades.

Another film clip showed a woman who said she was 40 years old and was trying to raise her children, but her early use of drugs seems to have left her with the emotional maturity of a 16-year-old.

Amidst all the gloom and doom, Matson gave the middle school students some positive news. He said most categories of drug use among teens have actually dropped during the past several years.

That means teens do not have to give in to peer pressure, he said. For example, four out of five teens have never used marijuana. Teens who refuse to smoke pot can know their action puts them with the majority of their peers.

The only category with increasing drug abuse is prescription drugs and over-the-counter drugs.

Matson noted that, if a person does slip up and make a mistake by experimenting with drugs or alcohol, the best thing is to quit using as quickly as possible.

He also noted that, even when drug or alcohol use has made differences in the brain, people's brains often have the ability to reroute around the areas that have been negatively affected.

Still, Matson made it clear that the best policy is for young people to stay off drugs altogether.

He showed video of a young person trying to recite the alphabet and stand with both feet together and his arms at his side. The teen had no trouble with the alphabet but began listing to the left and then hopping on his left foot until he collapsed on the ground.

Then the whole process was repeated to the right.

Matson said a person who is intoxicated cannot do two things at the same time because there is left-brain, right-brain confusion. He also pointed out that the young person was not legally intoxicated by adult standards.

He also showed horrific pictures of physical deterioration that meth users undergo. Matson said the thing for students to remember is that the unseen deterioration of the brain is even worse.

Matson especially warned teens against inhalants, which are most likely to lead to death even on the first use. They cause permanent damage not only to the brain but also to lungs, kidneys, liver, muscles and even bones.

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