A CURRENT REVIEW OF ALCOHOL AND OTHER DRUGS

Carl M. Dawson, M.S., MAC, LPC
Independent Practice
-
National Drug Court Institute (NDCI)
Washington, D.C.
-
The School of Professional Psychology at
Forest Institute
Springfield, Missouri
OUTLINE

• Carl’s First and Second “Rule” of studying addictions.

• Basic facts about alcohol and other drugs impact on the human brain.

• A general update on many of the current drugs being used and abused.
DAWSON’S FIRST “Rule” OF STUDYING ADDICTIONS

THERE ARE NO ABSOLUTES!
DAWSON’S SECOND “Rule”
OF STUDYING ADDICTIONS

IN ORDER TO WORK
EFFECTIVELY IN THE FIELD
OF ADDICTIONS . . .
YOU MUST UNDERSTAND
HOW THE BRAIN WORKS ! ! !
POINTS OF REFERENCE
THE AVERAGE ALCOHOL BEVERAGE UNIT (B.U.) "CONTAINS APPROX. ONE half (1/2) OUNCE OF ETHYL ALCOHOL"
ONE (1) 12-OUNCE BEER (4.9%) BY VOLUME, EQUALS ONE STANDARD BEVERAGE UNIT (B.U.).
ONE (1)
5-OUNCE GLASS
OF WINE (12%)
BY VOLUME,
EQUALS ONE
STANDARD
BEVERAGE UNIT
(B.U.).
ONE (1) COCKTAIL CONTAINING 1.5 OUNCES OF 80 PROOF (40%) BY VOLUME, EQUALS ONE STANDARD BEVERAGE UNIT (B.U.).
A ONE (1) OUNCE RECOMMENDED DOSAGE OF VICKS NYQUIL CONTAINS TEN (10%) ALCOHOL BY VOLUME . . . AND SUPPLIED WITH A NIFTY SHOT GLASS.
ONE (1) 20 ml.
MOUTH FULL
OF LISTERINE
ANTISEPTIC
CONTAINS
(26.9%) 
ALCOHOL BY
VOLUME.
Germ-X Hand Sanitizer, with Vitamin E, contains Sixty Three (63%) or 126 proof Ethyl Alcohol by volume.
ALCOHOL INFUSED GUMMY BEARS
QUESTIONS ABOUT THE HUMAN BRAIN

HOW MANY NEURONS DOES THE AVERAGE HUMAN BRAIN POSSESS?

HOW MANY NEURONS DO WE THINK WITH?

HOW MANY DO WE NOT THINK WITH?

HOW DOES A DRUG ENTER THE BRAIN?

WHERE IN THE BRAIN DOES ADDICTION OCCUR?
THE AVERAGE HUMAN BRAIN WEIGHS APPROX. THREE (3 Lbs.) POUNDS AND PRODUCES APPROXIMATELY 15 WATTS OF ELECTRICITY.
The human brain has the same basic texture and consistency of Jell-O
MENINGEAL LAYERS MAKE UP THE BBB

A REGION OF THE BRAIN THAT RESTRIC
ELEMENTS OF THE BLOOD AND CEREBROSPIAL FLUID FROM ENTERING INTO THE BRAIN.

THE BBB PROVIDES THE BRAIN PHYSICAL AND CHEMICAL PROTECTION FROM PHYSICAL INJURY AND HARMFUL SUBSTANCES.
THE BRAINS VASCULAR SYSTEM REQUIRES A CONSTANT 20% OF THE BODY’S BLOOD SUPPLY TO MAINTAIN NORMAL ACTIVITY
IMPORTANT REGIONS OF THE BRAIN

1

2

3

4

5

6
DELIVERING A DRUG TO THE BRAIN
ORAL INGESTION

( Introduction into the body via the mouth )
SUBLINGUAL INGESTION
( Introduced into the body from under the tongue )
INTRANASAL INHALATION
( Insufflation )
“ Snorting “
SMOKING INGESTION

(Introduction into the body via the lungs)
SMOKING AND ORAL PATHWAYS TO DELIVER A DRUG
SUBCUTANEOUS
“Below the Skin“
SUBCUTANEOUS INJECTION SITES “SKIN POPPING” AND INFECTED SCARRING
Figure 7: Extensive necrosis secondary to cocaine injection (courtesy Dr. Milton Viana, Belo Horizonte)
TRANSDERMAL PATCH
(Introduced into the body via the skin)
Nicotine Transdermal System
1.4 mg delivered over 24 hours
有效期至 2023
INTRAMUSCULAR
“Into the Muscle“
INTRAVENOUS

“Into the Vein”
SCARRED VEINS
OCCLUDED "BLOCKED" AND COLLAPSED VEINS
Figure 8: Granuloma (foreign body) along the venous path due to cocaine injection
THE “FEEL GOOD“ CHEMICALS IN THE BRAIN
We are believed to possess Sixty (60) plus neurotransmitters/neuromodulators in the brain and nervous system.

The Big Three (3) are the following:

1. **Dopamine (DA)**: Involved with pleasure, small and large motor movements and psychosis.

2. **Serotonin (5ht)**: Involved with self-confidence, feelings of well-being, anti-anxiety, anti-depression.

3. **Norepinephrine (NE)**: Stimulates the brains four (4) “F” centers.
THE LOCATION OF THE "FEEL GOOD" CENTERS OF THE BRAIN
PATHWAYS FOR THE PLEASURE CENTERS IN THE BRAIN

prefrontal cortex

nucleus accumbens

VTA
ORBITAL-FRONTAL LOBES OF THE BRAIN ARE CENTERS FOR MORAL, ETHICAL AND PERSONALITY DEVELOPMENT
TWO SIDES OF THE HUMAN BRAIN
CENTERS WHERE THE BRAIN REMEMBERS PLEASURE
Amygdala: WHERE THE BRAINDOWNLOADS EMOTIONAL MEMORY

- THE AMYGDALA IS CAPABLE OF DOWNLOADING FEARFUL OR PLEASURABLE EVENTS ON THE FIRST EXPOSURE.

- HOWEVER, EVOLUTION HAS TAUGHT THE AMYGDALA TO BE VERY RELUCTANT TO EVER FORGET WHAT IT HAS LEARNED.

- THIS HELPS EXPLAIN THE WHY PTSD IS DIFFICULT TO TREAT.
A PET SCAN IMAGE OF THE BRAINS MEMORY CENTERS RESPONDING TO A PLEASURABLE EVENT
CENTRALLY-ACTIVATING (aka: Psycho-active) DRUGS
ALL DRUGS ARE DESIGNED TO EITHER IMITATE YOUR BODY’S “FEEL” GOOD CHEMICALS . . . OVER STIMULATE THEIR PRODUCTION AND RELEASE . . . OR ALL THE ABOVE
DEPRESSANTS

( Drugs that “suppress” the activities of the brain )
DEPRESSANT DRUGS THAT DEPRESS THE ACTIVITIES OF THE BRAIN

DEPRESSANT DRUGS INCLUDE THE FOLLOWING:

1. **ALCOHOL** (ANY SUBSTANCE CONTAINING ETHYL ALCOHOL).

2. **ANTI-ANXIETY AGENTS**:
   (BENZODIAZEPINES . . . BARBITURATES).

3. **SLEEP AIDS**: (SEDATIVE - HYPNOTICS).

4. **PAIN RELIEF**: (OPIATES / OPIOIDS).
5. OVER THE COUNTER (OTC) AGENTS CONTAINING THE FOLLOWING:
COLD AND FLU PREPARATIONS CONTAINING . . .
"ANTIHISTAMINES", "DIPHENHYDRAMINE", AND COUGH MEDICATIONS CONTAINING . . . "DEXTROMETHORPHAN".

6. ILLICIT DRUGS CONTAINING:
"MARIJUANA", "GHB" AND "INHALANTS".
ALCOHOL
DOES ALCOHOL REALLY KILL BRAIN CELL?
NO!

ALCOHOL **INDIRECTLY** DAMAGES THE CELLS OF THE BRAIN THOUGH:

1. **HYPOXIA**: DECREASING THE NECESSARY AMOUNT OF O2 TO THE BRAIN OVER AN EXTENDED PERIOD OF TIME.

2. **MALNUTRITION**: DEPLETING THE BODY OF IMPORTANT VITAMINS AND MINERALS NORMAL FOR NEUROLOGICAL FUNCTIONING.

3. **LIVER DISEASE**: LONG-TERM ALCOHOL EXPOSURE DAMAGES NORMAL LIVER FUNCTIONING WHICH THEN BECOMES TOXIC TO THE BRAIN.
ALCOHOL:

1. CENTRAL NERVOUS SYSTEM DEPRESSANT.
2. PRODUCES AN “ADDITIVE EFFECT” (1+1 = 3).
3. DEHYDRATE (REDUCES BODY FLUIDS AND H₂O).
4. ASTRINGENT (LIQUID “SAND PAPER”).
5. STEALS O₂ FROM THE CELLS AND TISSUES OF THE BODY.
6. VASODILATOR (ENLARGES THE BLOOD VESSELS).
7. DEPLETES THE BODY OF NECESSARY VITAMINS AND MINERALS.
8. THE LIVER TREATS ALCOHOL AS A POISON (TOXIN).
9. MUST ACT AS EITHER AN OPIATE OR A BENZODIAZEPINE.
10. METABOLIZED BY THE LIVER AT A CONSTANT RATE OF ONE (1) OUNCE PER EVERY TWO (2) HOURS.
BENZODIAZEPINES
BENZODIAZEPINES

- BENZODIAZEPINE MEDICATIONS POSSESS A MILD POTENTIAL FOR ABUSE AND DEPENDENCE CONCERNS.

- BENZODIAZEPINE MEDICATION ABUSE TYPICALLY DOES NOT RESULT IN FATAL OR LETHAL DRUG OVERDOSE.

- BENZODIAZEPINE MEDICATIONS ARE NOT RECOMMENDED WHEN ALSO PRESCRIBED ANTI-ALCOHOL AND ANTI-OPIATE MEDICATIONS.
BENZODIAZEPINES

- BENZODIAZEPINES ARE METABOLIZED BY THE LIVER SIMILAR TO ALCOHOL.

- THEY DIRECTLY INHIBIT LONG-TERM LEARNING BY THE BRAIN.

- BENZODIAZEPINES ARE KNOWN FOR PRODUCING ANTERIOR-GRADE AMNESIA. (ROHYPNOL, VERSED)

- DETOXIFICATION FROM BENZODIAZEPINES MAY TAKE A LONG TIME TO BE EFFECTIVE OR THE POTENTIAL FOR RELAPSE IS HIGH.
SEDATIVE (HYPNOTICS)
“SLEEP AIDS”
SEDATIVE (HYPNOTICS) “SLEEP AIDS”

- SEDATIVE (HYPNOTIC) MEDICATIONS ARE CONSIDERED SLEEP AIDS.

- SEDATIVE (HYPNOTICS) ARE TYPICALLY PRESCRIBED FOR SLEEP DISORDERS (INSOMNIA: DIFFICULTY BEING ABLE TO PRODUCE SLEEP, OR THE INABILITY TO STAY A SLEEP).

- SEDATIVE (HYPNOTICS) ARE CONSIDERED CNS DEPRESSANTS AND ARE CREATED FROM VARIATIONS OF BARBITURATES, BENZODIAZEPINES OR NON-BENZODIAZEPINE MEDICATIONS.

- CURRENTLY MOST SEDATIVE (HYPNOTIC) MEDICATIONS ARE NOT RECOMMENDED TO BE TAKEN LONGER THAN TWO (2) TO SIX (6) WEEKS.
OPIATES / OPIOIDS
( aka : Narcotics )
PTOSIS and CONSTRICTED PUPILS
- OPIATE OVERDOSE CAN BE LETHAL, EITHER WHEN USED ALONE AND ESPECIALLY WHEN USED WITH OTHER CNS DEPRESSANTS (1 + 1 = 3) EFFECTS.

- OPIATE SUBSTANCES ARE LIPOPHILIC (LOVES FAT). MEANING THEY INFILTRATE INTO THE HIGH PROTEIN AND FAT CONTAINING ORGANS OF THE BRAIN AND BODY . . . QUICKLY. (HEROIN vs. CODEINE)

- OPIATE ADDICTS BECOMES ADDICTED TO THE “RUSH”.

- OPIATE DRUGS THAT PRODUCE “LESS OF A RUSH” ARE LESS FAT-SOLUBLE AND ARE MORE EFFECTIVE IN TREATING OPIATE DEPENDENCE. (METHADONE AND BUPRENORPHINE)
OPIATES

- OPIATE SUBSTANCES ARE KNOWN TO PRODUCE PSYCHOLOGICAL AND PHYSICAL ABUSE AND DEPENDENCE.

- THE MOST COMMON CAUSE OF OPIATE / OPIOID DEATH IS RESPIRATORY ARREST. (STOPS BREATHING)
“ZOHYDRO”
• THIS SUBSTANCE IS CONSIDERED THE MOST POWERFUL EVER LEGALLY DISPENSED OPIATE,

• CONSIDERED TEN (10x’s) MORE POWERFUL THAN VICODIN,

• IDENTIFIED AS PURE HYDROCODONE,

• TIME RELEASED,

• USED FOR MODERATE TO SEVERE PAIN,

• THE PILLS CAN BE ADULTERATED (CRUSHED) FOR A MORE POWERFUL AND IMMEDIATE HIGH,

• CREATED BY A SAN DIEGO, CALIF COMPANY “ZOGENIX”,

• HAS THE ADDICTION TREATMENT COMMUNITY SCARED TO DEATH !!!
DESIGNER OPIATES DRUGS
(KROKODIL)
Krokodil (Desomorphine)
(Crocodile)
• THIS IS A DRUG THAT GOT IT’S NAME BECAUSE OF THE GREENISH / SCALY APPEARANCE THAT DEVELOPS AROUND THE REGIONS OF THE INJECTION SITE.

• A DESIGNER SEMI-SYNTHETIC OPIATE DRUG INVENTED IN RUSSIA.

• THIS DRUG COMBINES CODEINE, GASOLINE, PAINT THINNER, IODINE, HYDROCHLORIC ACID AND RED PHOSPHOROUS.

• THIS DRUG IS CONSIDERED TO BE SIX (6) TO TEN (10) TIMES MORE POWERFUL THAN HEROIN.

• THE USE OF THIS DRUG WILL RESULT IN LARGE AREAS OF NECROTIC (DEAD) SKIN “ESCARS” TO FORM AROUND THE INJECTION SITES, RESULTING IN ROUTINE INFECTIONS AND AMPUTATIONS.
KROKODIL DESTROYS HUMAN FLESH AND BONES
CANNABIS
( MARIJUANA and K-2 )
CANNABIS “MARIJUANA”

• CANNABIS “MARIJUANA” POSSESS IT’S OWN CLASSIFICATION “CANNABIS”.

• OVER FOUR HUNDRED SIXTY (460) KNOWN CHEMICALS FOUND IN THE SMOKE OF MARIJUANA.

• MORE THAN SIXTY (60) ARE KNOWN TO BE CANABINOIDS.

• THE USER IS ATTEMPTING TO ISOLATE TWO (2) CHEMICALS ... (▲ 8 & 9 - THC).
CANNABIS “ MARIJUANA ”

⚠️ 8 & 9 - THC ARE ATTRACTED TO THE HIGH PROTEIN REGIONS OF THE BODY.
The light regions of the brain represent high areas of protein.
8 & 9 - THC EFFECTS THE ACTIVITY OF THE “SHORT-TERM” LEARNING CENTERS OF THE BRAIN.
THC’s ARE ATTRACTION TO THE HIGH PROTEIN AREAS OF THE BRAIN, WHICH INCLUDE THE MEMORY AND LEARNING CENTERS.
DOES THE BRAIN PRODUCE IT’S OWN MARIJUANA?

ENDOR-CANNABINOID

- VS -

TETRA-HYDRO-CANNABINOID
ENDOCANNABNOIDS ACT AS NEUROCHEMICAL POLICE . . . DIRECTING EACH NEUROTRANSMISSION . . . AND INSURING . . . THAT EACH NEUROCHEMICAL ARRIVES SAFELY AT ITS DESIRED DESTINATION .
TETRAHYDROCANNABINOL IS LIKE LETTING A DRUNK COWBOY DIRECT TRAFFIC !!!
REMEMBER . . .

SECOND HAND INHALATION OF MARIJUANA SMOKE WILL NOT RESULT IN A "POSITIVE" URINE SCREENING ANALYSIS ! ! !
MY ITALIAN MOTHER WARNED ME THAT
IF I EVER SMOKED MARIJUANA
THAT MY TESTICULES WOULD DRY UP AND FALL OFF !!!!

FACT OR FICTION

IS MY MOM RIGHT ???
YES !!!

RESEARCH CONDUCTED AT THE “FRED HUTCHINSON CANCER CENTER “ SEATTLE, WASHINGTON . . . FOUND THAT SINCE THE MALE TESTIES POSSESS A HIGH NUMBER OF ENDOCABINOID RECEPTORS, THEY WERE TWICE ( 2 X ’s ) AS LIKELY TO DEVELOP A FORM OF AN EXTREMELY FAST SPREADING CANCER, KNOWN AS “ NONSEMINOMA “ , THAN NON-SMOKERS . .
K-2 “SPICE” (SYNTHETIC CANNABIS)

- CREATED IN THE MID. 1990’s BY JOHN W. HUFFMAN (jwh), CLEMSON UNIVERSITY.

- CENTRALLY ACTIVE INGREDIENTS INCLUDE:
  (jwh-018, jwh-073, jwh-397, jwh-250 and cr-47497)

- THE SYNTHETIC CANNABIS IS SPRAYED ON APPROXIMATELY THREE (3) GRAMS OF DRIED VEG. MATTER.
• THE SYNTHETIC CANNABIS IS A FULL CANNABINOID RECEPTOR AGONIST.

• CONSIDERED 5 x’s MORE POWERFUL THAN MARIJUANA (THC).

• MARKETED AS “HERBAL INCENSE” AND “HERBAL SMOKING BLENDS”.

• SYNTHETIC CANNABIS DOES NOT TEST POSITIVE FOR CANNABINOIDs IN A REGULAR URINE SCREEN BUT IT METABOLITES CAN BE FOUND IN HUMAN URINE.

• ON MARCH 1, 2011, THE U.S. DEA CLASSIFIED ALL FIVE (5) SYNTHETIC CANNABINOIDs AS SCHEDULE I DRUGS.
DELIRIANTS

“INHALANTS”
DELIRIANTS “ INHALANTS ” INCLUDE: SOLVENTS, GLUES, GASOLINE AND FREON BASED PRODUCTS.

DELIRIANTS “ INHALANTS ” FREQUENTLY PRODUCE BIZARRE, VIVID AND FRIGHTENING SENSORY HALLUCINATIONS DUE TO A SIGNIFICANT LACK OF OXYGEN TO THE BRAIN, ALSO KNOWN AS:

* HYPOXIA (REDUCED O₂)

* ANOXIA (NO O₂).
HALLUCINOGENS
HALLUCINOGENS

HALLUCINOGENIC DRUGS INCLUDE:
1. LYSERGIC ACID DIETHYLAMIDE (LSD) “Acid”.
2. MESCALINE “Found in Peyote cactus”.
3. PEYOTE “Cactus”.
4. PSILOCYBIN “Magic Mushrooms”.
5. MDA and MDMA “Ecstasy”.
6. PHENCYCLIDINE (PCP) “Angel Dust”.
7. KETAMINE Special “K”.

Remember: These drugs release the neurotransmitter Serotonin.
HALLUCINOGENIC DRUGS MIMIC EXISTING NEUROTRANSMITTERS
**STIMULATE** (Drugs that “activate” the brain)

- COCAINE,
- AMPHETAMINES,
- METHAMPHETAMINES
- MDMA
- MEPHEDRONE-Cathinone (MCAT, Bliss, Plant food)
**STIMULANT** DRUGS INCLUDE
THE FOLLOWING:
WEIGHT CONTROL, ANTI-SLEEP,
ANTI-(ADD/ADHD) MEDICATIONS:
(AMPHETAMINES, PHENTERMINES)
(RITALIN, CYLERT AND ADDERALL).

OVER THE COUNTER (OTC)
PRODUCTS CONTAINING . . .
EPHEDRINE / EPHEDRA OR
PSEUDOEPHEDRINE.
MDMA "ECSTASY" OR "DESIGNER" DRUGS THAT INCLUDE ANY OF THE MENTIONED STIMULANT SUBSTANCES.

ILLICIT SUBSTANCES INCLUDING: AMPHETAMINES, METHAMPHETAMINES (D1–4), "ICE" . . .

COCAINE "POWDER" OR "CRACK" . . .
COMMON NEURON

NEUROTRANSMITTERS

RECEPTORS

FIRST (PRE) NEURON

SECOND (POST) NEURON
"REUPTAKE" INHIBITION (COCAINE)
"REUPTAKE"
INHIBITION AND HYPER-STIMULATION
(METHAMPHETAMINE)
PERCENTAGES OF DOPAMINE (D A) DURING THE FOLLOWING EVENTS

ASSUME THAT NORMAL BASELINE IS ZERO.

(0)

SINCE DOPAMINE (DA) IS THE BRAINS MOST POWERFUL “PLEASURE” CHEMICAL... HOW MUCH DOPAMINE (DA) IS TYPICALLY RELEASED DURING FOLLOWING ACTIVITIES ???
PERCENTAGES OF DOPAMINE (DA) RELEASED

APPROXIMATELY HOW MUCH (DA) IS RELEASED DURING A SEXUAL ENCOUNTER?

( % )

ABOVE (-0-) BASELINE!

...FOR APPROXIMATELY (20) MINUTES!
PERCENTAGES OF DOPAMINE (DA) RELEASED

APPROXIMATELY HOW MUCH (DA) IS RELEASED WHEN USING MARIJUANA?

( % )

ABOVE (-0-) BASELINE!...

...FOR APPROXIMATELY (2) HOURS!
PERCENTAGES OF DOPAMINE (DA) RELEASED

APPROXIMATELY HOW MUCH (DA) IS RELEASED WHEN USING COCAINE?

( % )

ABOVE (-0-) BASELINE!

“CRACK” COCAINE FOR APPROXIMATELY (10 TO 15) MINUTES...

“POWDER” COCAINE FOR APPROXIMATELY (20 TO 60) MINUTES.
PERCENTAGES OF DOPAMINE (DA) RELEASED

APPROXIMATELY HOW MUCH (DA) IS RELEASED WHEN USING (D-4) METHAMPHETAMINE?

( % )

ABOVE (-0-) BASELINE!...

...FROM (12) TO (24) HOURS.
DESIGNER “HALLUCINOGENIC-STIMULANT” DRUGS (MDMA “ECSTASY”)
MDMA ( METHYLENEDIOXYMETHAMPHETAMINE )

• MDMA ( ECSTASY ) IS THE MOST POPULAR RECREATIONAL DRUG.

• MDMA IS A POWERFUL SERITONERGIC ( SEROTONIN “5HT” RELEASING ) DRUG.

• MDMA BLOCKS THE REUPTAKE OF SEROTONIN SIMILAR TO SSRI ANTI-DEPRESSANT MEDICATIONS.

• GENERAL EFFECTS BEGAN APPROXIMATELY 30-60 MINUTES AFTER CONSUMPTION, MAINTAINING A PLATEAU FOR 2-3 HOURS, FOLLOWED BY A 2-3 HOUR COME DOWN.
DESIGNER "HALLUCINOGENIC-STIMULANT" DRUGS (MEPHEDRONE "MCAT")
MEPHEDRONE (4-METHYLEPHEDRONE)

• MEPHEDRONE IS A SYNTHETIC STIMULANT.

• MEPHEDRONE PRODUCES SIMILAR EFFECTS TO MDMA, AMPHETAMINES AND COCAINE.

• MEPHEDRONE CAN BE TAKEN:

  ORALLY: INTENDED EFFECTS OCCUR WITHIN 15-45 MINUTES.

  NASALLY: INTENDED EFFECTS OCCUR WITHIN 30 MINUTES.

• THE EFFECTS LAST BETWEEN 2 TO 3 HOURS AND ONLY 30 MINUTES WHEN TAKEN INTRAVENOUSLY.
PUMP-IT POWDER OR “GERANAMINE” METHYLEHEXANAMINE
PUMP IT POWDER

• This drug’s centrally active substances are actually found in the geranium plant.

• Geranamine is considered an old time amphetamine related stimulant.

• The use or abuse of this drug usually results in high blood pressure, body temp. and heart rate, dilation of pupils, accelerated internal clock, gooseflesh (piloerections), seizures, hallucinations and paranoia.

• Recent reports are that this substance produces both physical and psychological dependency, similar to “bath salts”, and more powerful than cocaine and methamphetamine.

• Geranamine can be consumed by either snorting, smoking or intravenous injection, usually lasting approximately 6-12 hours.

• Average cost is $30.00 per can.
EXTREME DEHYDRATION DUE TO ELEVATED BODY TEMPERATURE
FACIAL ULCERATIONS AND INFECTIOUS “IMPETIGO”
EXTREME MALNUTRITION RESULTING IN "METH" MOUTH
STEREOTYPICAL "PICKING" BEHAVIORS
FORMICATION  " METH "  BUGS
DRUGS ARE BAD
PRESENTATION OVERVIEW

- General information about the impact of alcohol and drugs on the general population.

- Introduced the proper usages of common terms used in the field of dependency and treatment.

- Reviewed the brain, the typical chemicals involved in the development of addiction and dependency.

- Reviewed the "Psychopharmacology" of Depressant, Stimulant and Hallucinogenic drugs.
CONTACT INFORMATION:

CARL M. DAWSON, M.S., MAC, LPC

1320 EAST KINGSLEY

SUITE “A”

SPRINGFIELD, MISSOURI 65804

E-MAIL: (cdawson1028@yahoo.com)
Recommend Readings

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Substance Abuse and Mental Health Services Administration
Center for Substance Abuse Treatment
TREATMENT IMPROVEMENT PROTOCOL
(TIP) SERIES
Rockwall II, 5600 Fishers Lane
Rockville, MD 20857
References


