Department of
Mental Health &
Substance Abuse Services

Opioid Addiction

The Opioid Addicted Pregnant Patient

Stephen Loyd, M.D.; Assistant Commissioner of Substance Abuse Services

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- Receives no commercial support, in any form, from pharmaceutical companies or anyone else
- Medical Director for Substance Abuse Services, Tennessee Department of Mental Health and Substance Abuse Services; Associate Professor, Department of Internal Medicine, Quillen College of Medicine, East Tennessee State University;
- Expert witness, *U.S. Attorney, TBI, FBI, DEA, IRS, Commonwealth Attorney Virginia and Kentucky, Virginia State Police, Tennessee Board of Medical Specialties*
- Member, Greene County Drug Court, Judge Kenneth Bailey and member of the National Association of Drug Court Professionals
- Speaker, *Proper Prescribing of Controlled Substances*
- Founding Partner, *High Point Clinic*, a non-profit clinic in Johnson City, Tennessee, with an interest in opioid addicted pregnant women
- Recovering from addiction to opiates, benzodiazepines and alcohol since July 2004
- Advocate for *Proposition 46* in the state of California
- *2014 Advocate for Action*, Office of National Drug Control Policy, Executive Office of the President of the United States
- Tennessee Volunteer Fan and Alum and Father to **Heath** and **Hayley** and husband of 27 years to **Karen**

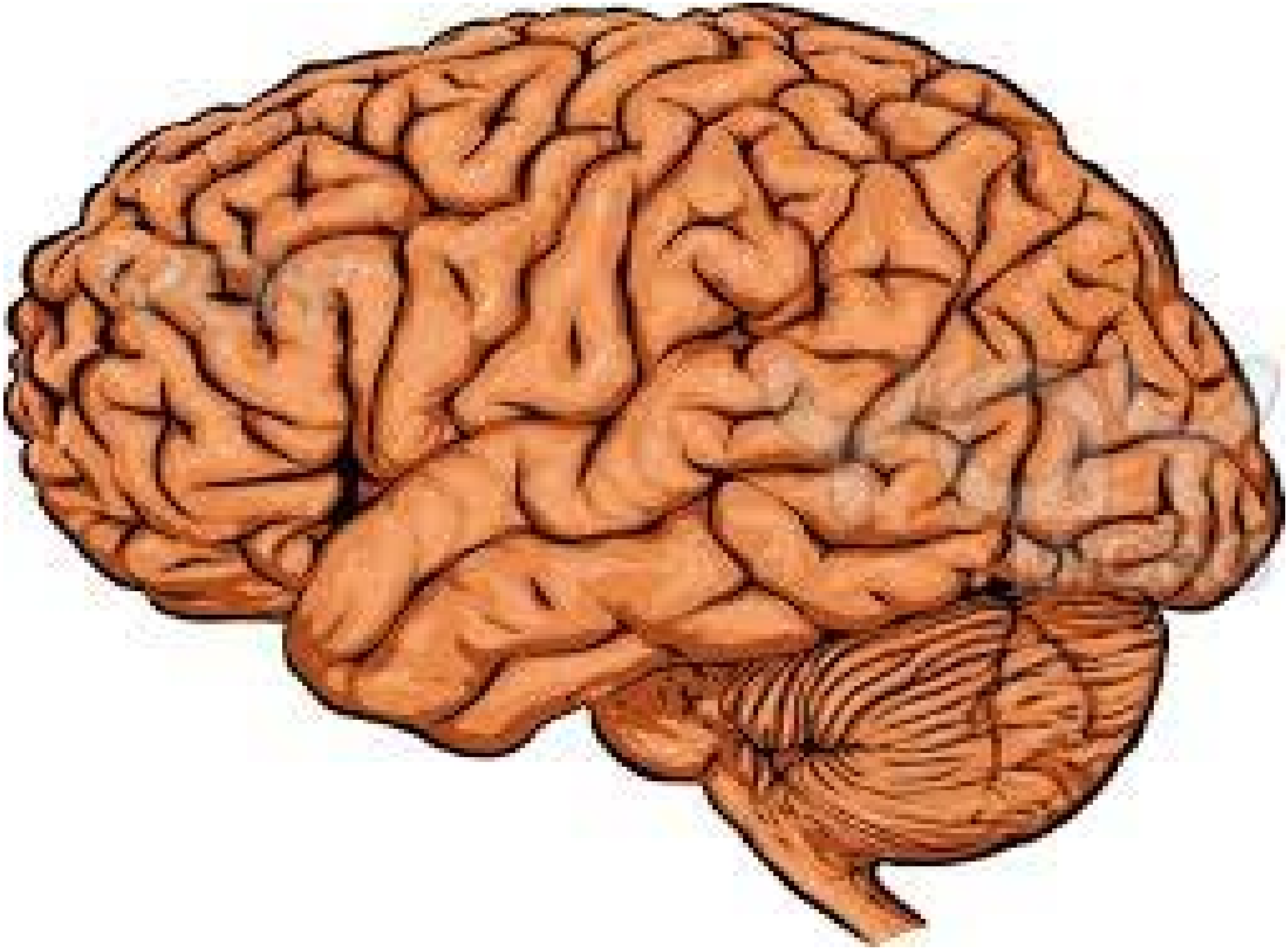
Learning Objectives

- Understand the neurobiological basis of addictive disease
- Overview of prescription drug abuse
- Understand approaches to the opioid addicted pregnant patient

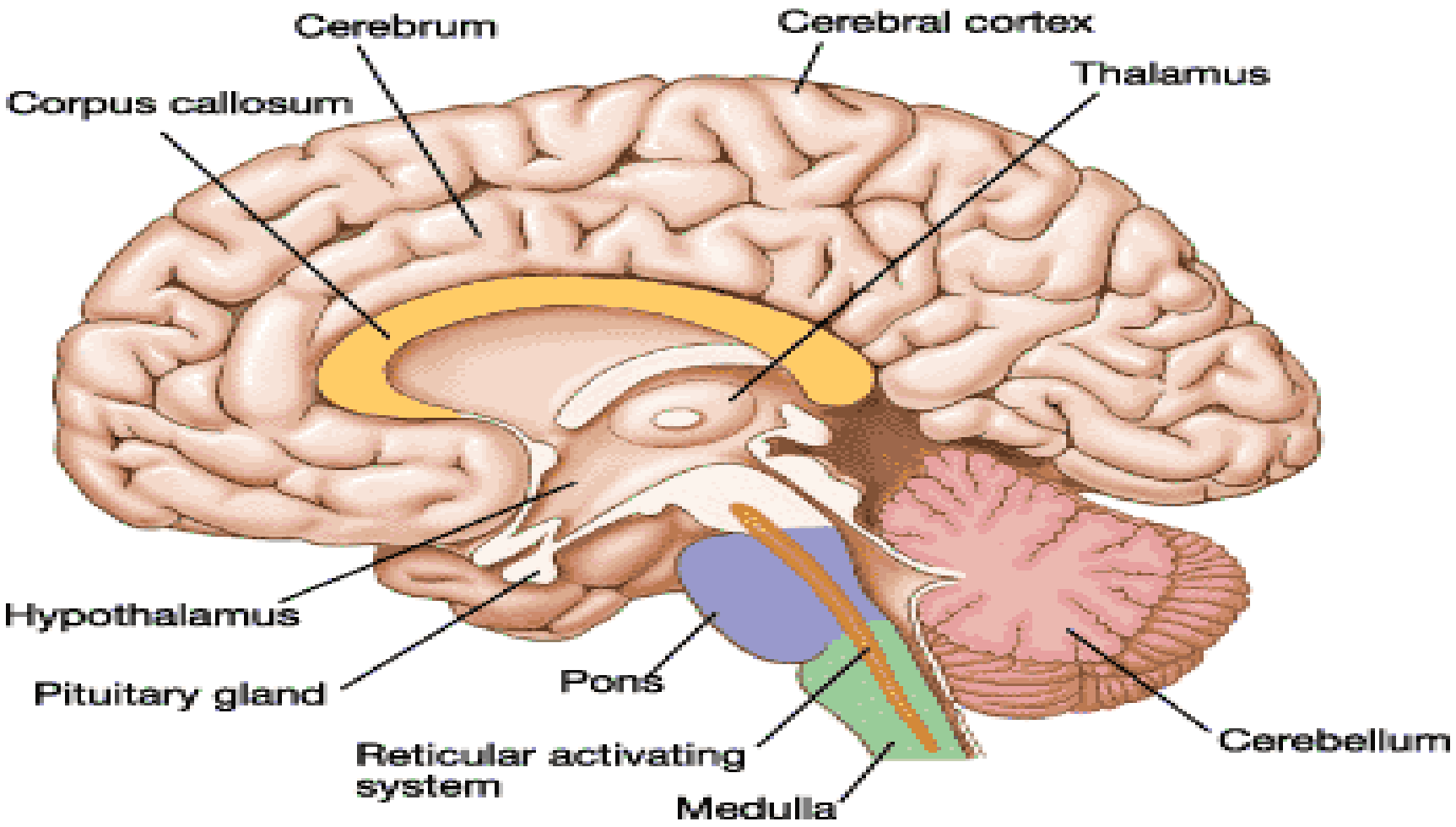
Dependence vs. Addiction

- **Dependence**- once the drug is stopped, a predictable physiological withdrawal syndrome occurs

- **Addiction**- the compulsive use, loss of control and continued use despite adverse consequences; hallmark is ***craving***.



Hi-Jacking of the Limbic System (Rewards)

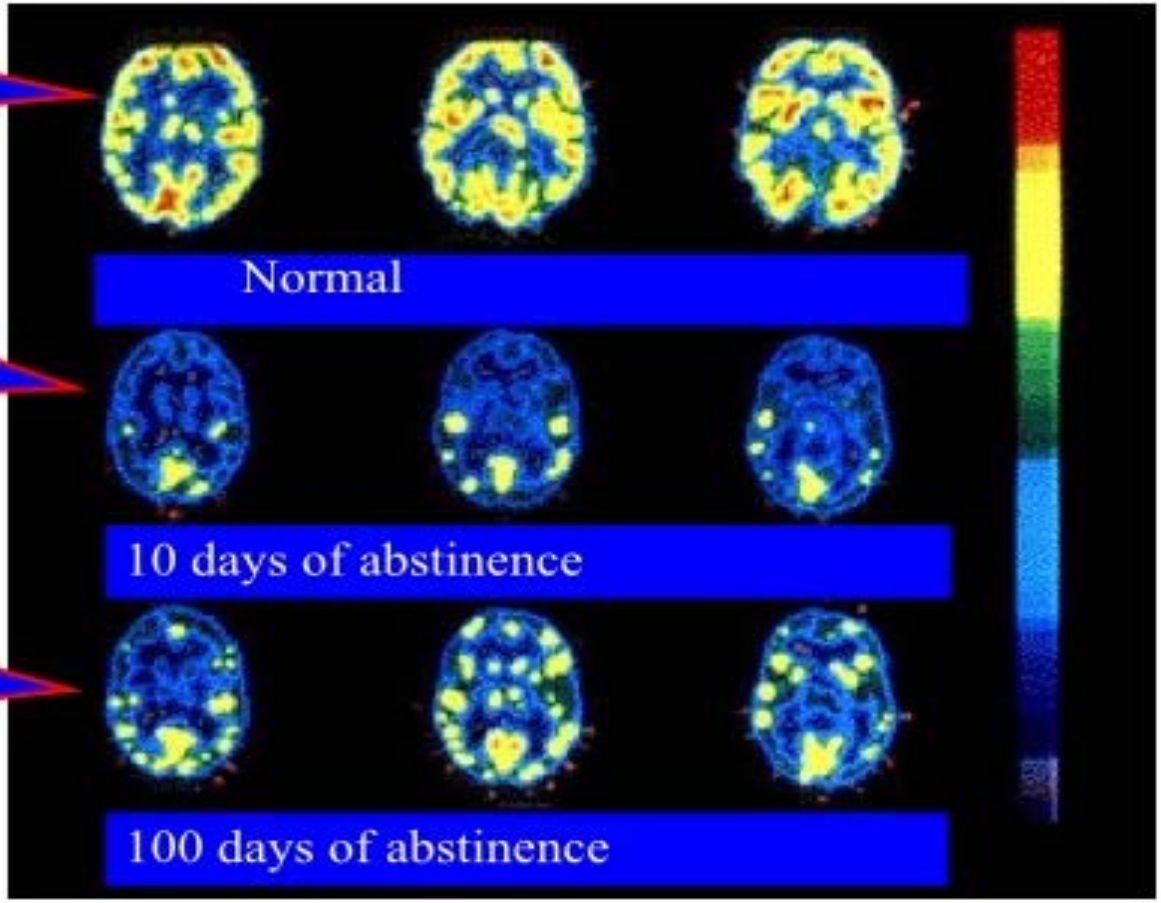


Brian Healing Takes Time

Normal levels of brain activity in PET scans show up in yellow to red

Reduced brain activity after regular use can be seen even after 10 days of abstinence

After 100 days of abstinence, we can see brain activity "starting" to recover



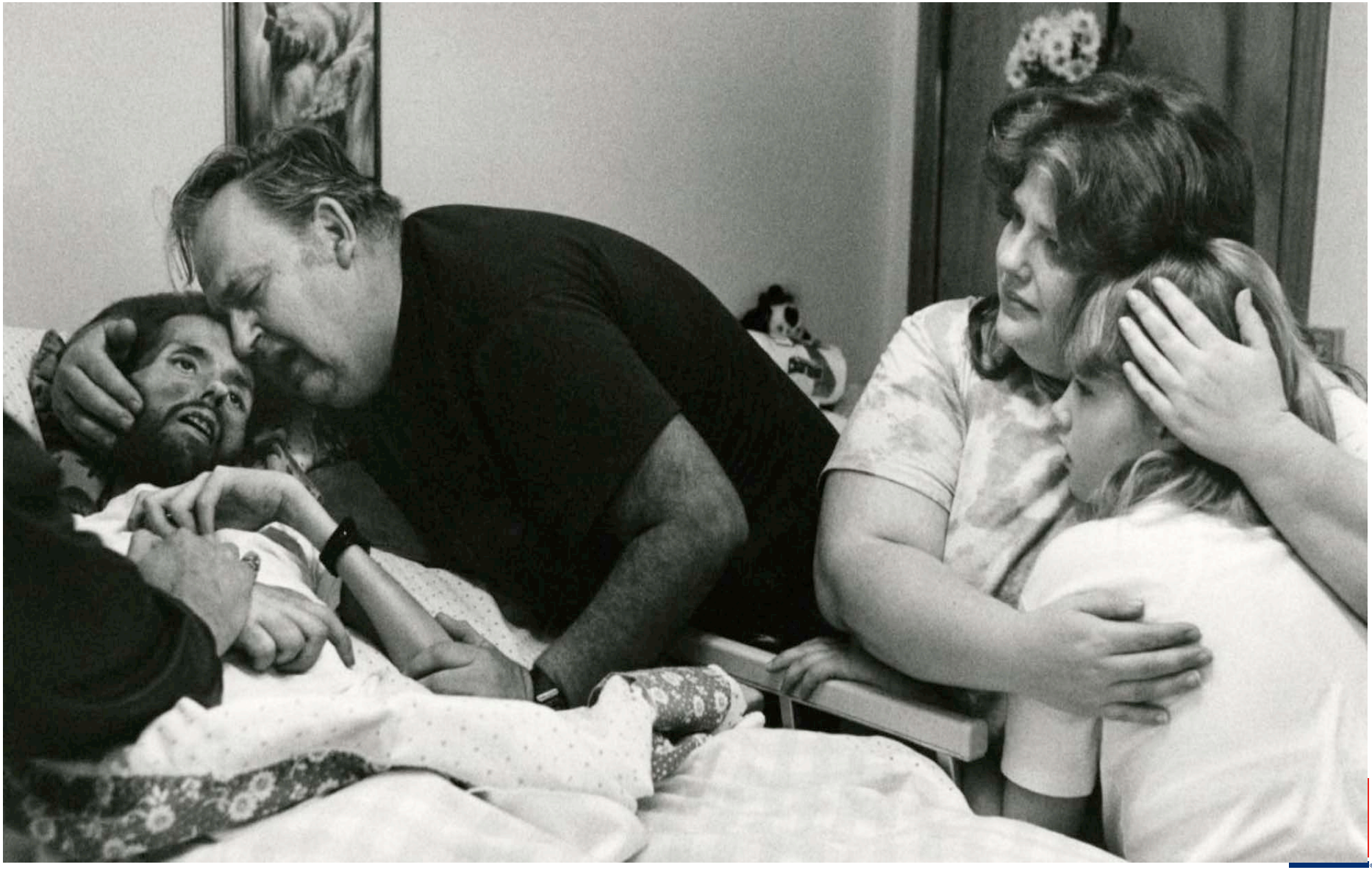
Source: Volkow ND, et al. Synapse 11:184-190, 1992; Volkow ND, et al. Synapse 14:169-177, 1993.

Science = Solutions

TN

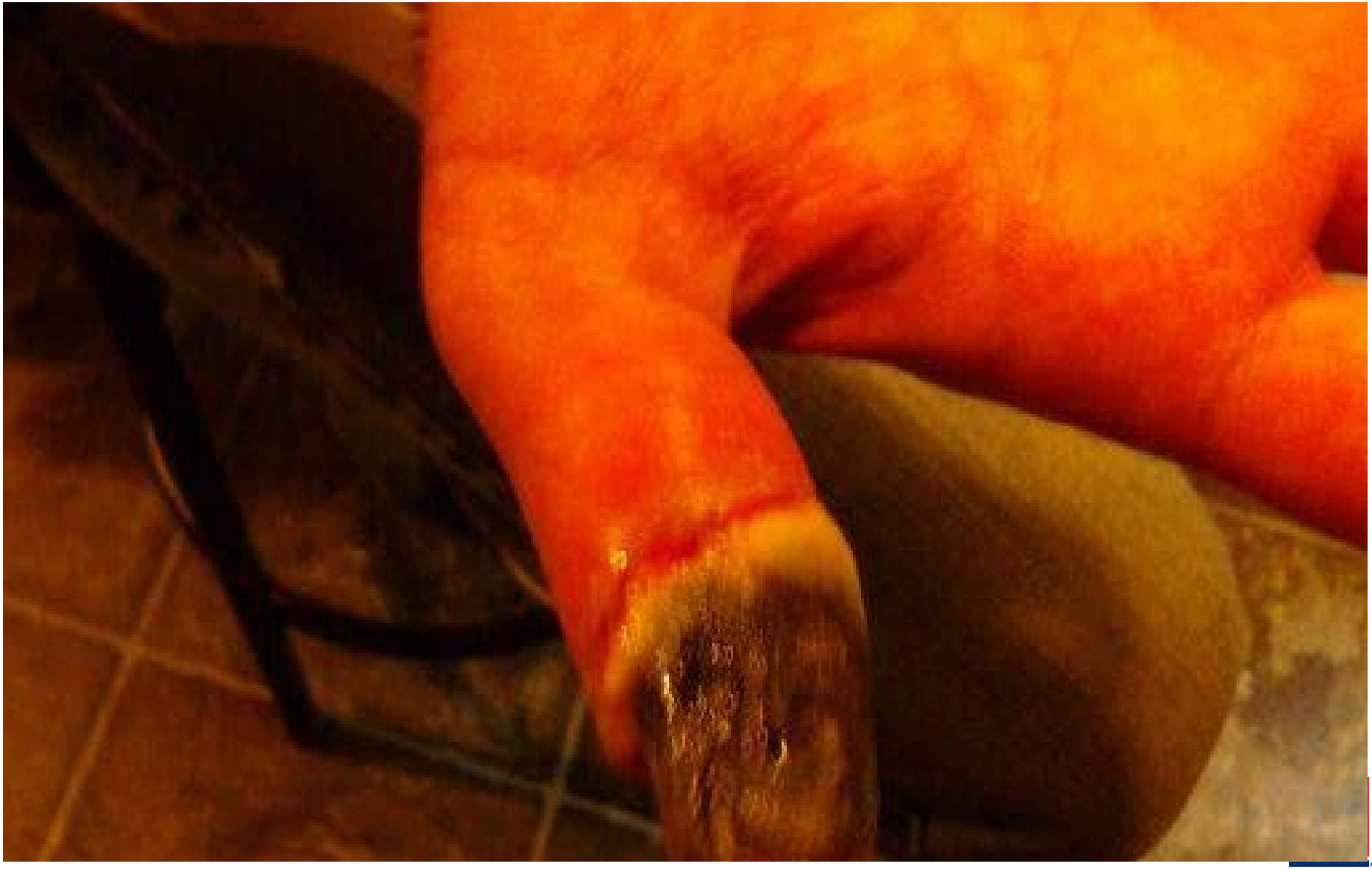
1930's Mental Health Treatment

What's the picture that changes the face of addiction? (David Kirby)

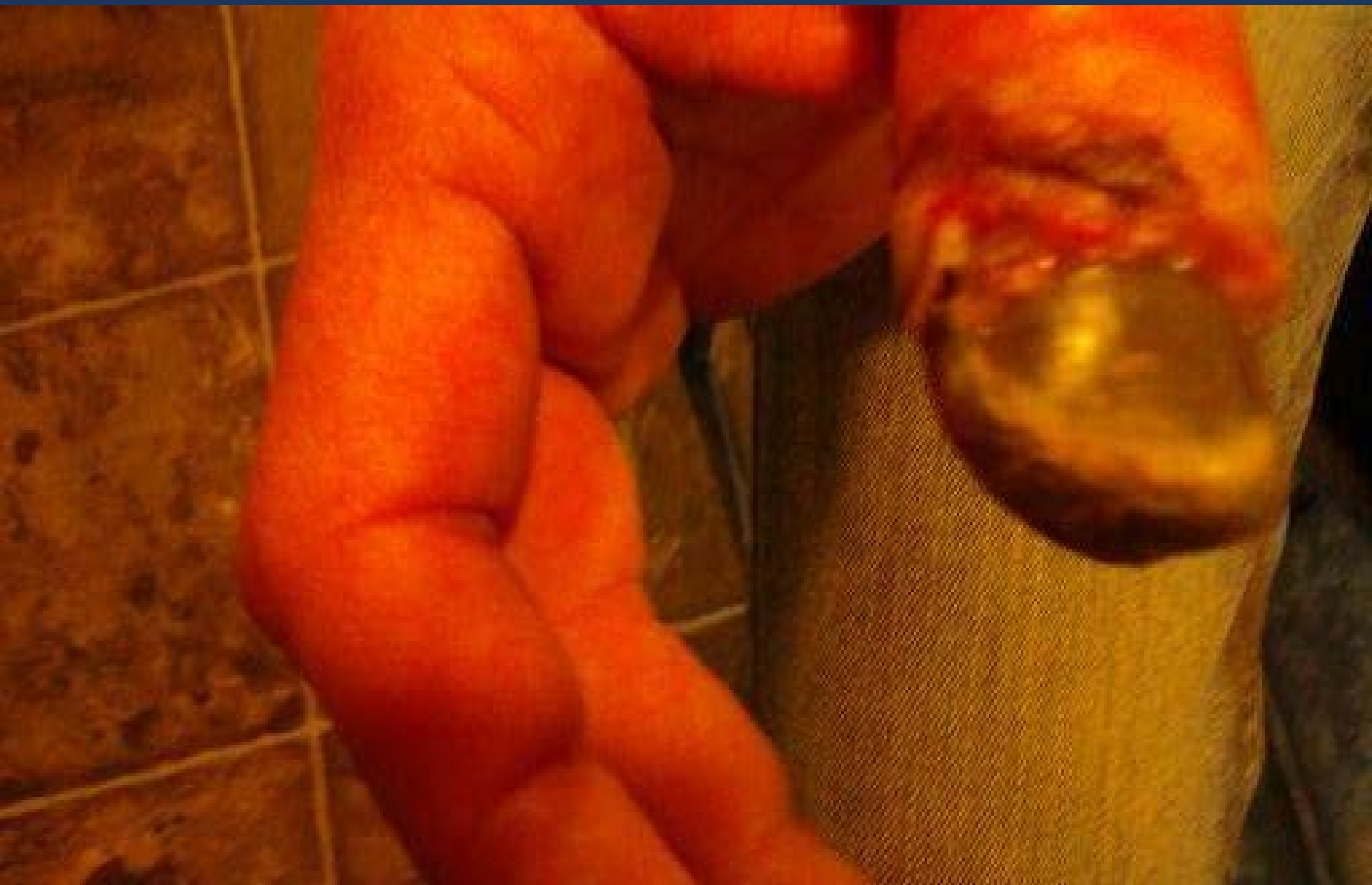


Does this change the face of drug addiction?

Thumb?



Underground Healthcare



Injection Risks

- Cellulitis +/- abscess formation
- Sepsis
- Endocarditis
- Osteomyelitis
- Hepatitis B & C
- HIV

Withdrawal Syndrome

- Short acting opioids (heroin, oxycodone, hydrocodone)
  - Develops with 4-6 hours, progresses to 72 hours, subsides in a week
- Long acting opioids (methadone, *Oxycontin*)
  - Develops in 24-36 hours, may last for several weeks
- *Obsessive thinking and cravings may persist for years*
- **Fetal death** is a risk in pregnant women *not treated for opioid addiction* because the offspring experience acute opioid abstinence syndrome (*Obstet Gynecol Clin North Am* 1998;25:139-51)

Effects on Pregnancy Outcomes

- 1st trimester- codeine can cause congenital heart defects
- No increase in the risk of birth defects after prenatal exposure to oxycodone, propoxyphene and meperidine
- Heroin- fetal growth restriction, *abruptio placentae*, fetal death, pre-term labor and intrauterine passage of meconium *(effects of repeated withdrawal on placental function)*
- Risk of woman engaging in prostitution, theft and violence
  - Sexually transmitted diseases
  - Becoming victims of violence
  - Legal consequences- loss of child custody, criminal proceedings or incarceration

Pregnancy Substance Abuse Red Flags

- *Seek prenatal care late in pregnancy*
- Poor adherence to their appointments
- Poor weight gain
- Sedation, intoxication, withdrawal symptoms, erratic behavior
- Track marks, abscesses, cellulitis (injection sites)
- Positive serology for Hepatitis B&C, HIV
- UDS- with patient's consent and in compliance with state laws

Treatment

- Methadone- standard of care since the 1970's
- Rationale for treatment- prevent complications of illicit opioid use and narcotic withdrawal
- Goals- encourage prenatal care and drug treatment
  - Reduce criminal activity
  - Avoid risks associated with the drug culture
- *Comprehensive opioid-assisted therapy that includes prenatal care reduces the risk of obstetric complications* (*SAMSHA/CSAT* February 9, 2012)

Neonatal Abstinence Syndrome

- *Methadone*/buprenorphine (*Subutex*/*Suboxone*) ***do not*** prevent NAS

- ***NAS is an expected and treatable condition***- need collaboration among treating specialties

- Hyperactivity of the central and autonomic nervous systems
  - Uncontrolled sucking reflexes- leads to poor feeding
  - Irritability
  - High pitched cry

Opioid Replacement in Pregnancy

- Should be titrated until the woman is asymptomatic- withdrawals and cravings

- Systematic literature review- *severity of NAS does not appear to differ based on the maternal dosage of methadone**

- Buprenorphine is the only approved opioid for the treatment of opioid dependence in an office-based setting
  - **Addiction* 2010; 105:2071-84

2010 NEJM (N Eng J Med 2010; 363:2320-31)

- Buprenorphine (*Subutex/Suboxone*) or methadone in 175 opioid-dependent pregnant women

- Buprenorphine neonates required:
  - *89% less morphine to treat NAS*
  - *43% shorter hospital stay*
  - *58% shorter duration of medical treatment for NAS*

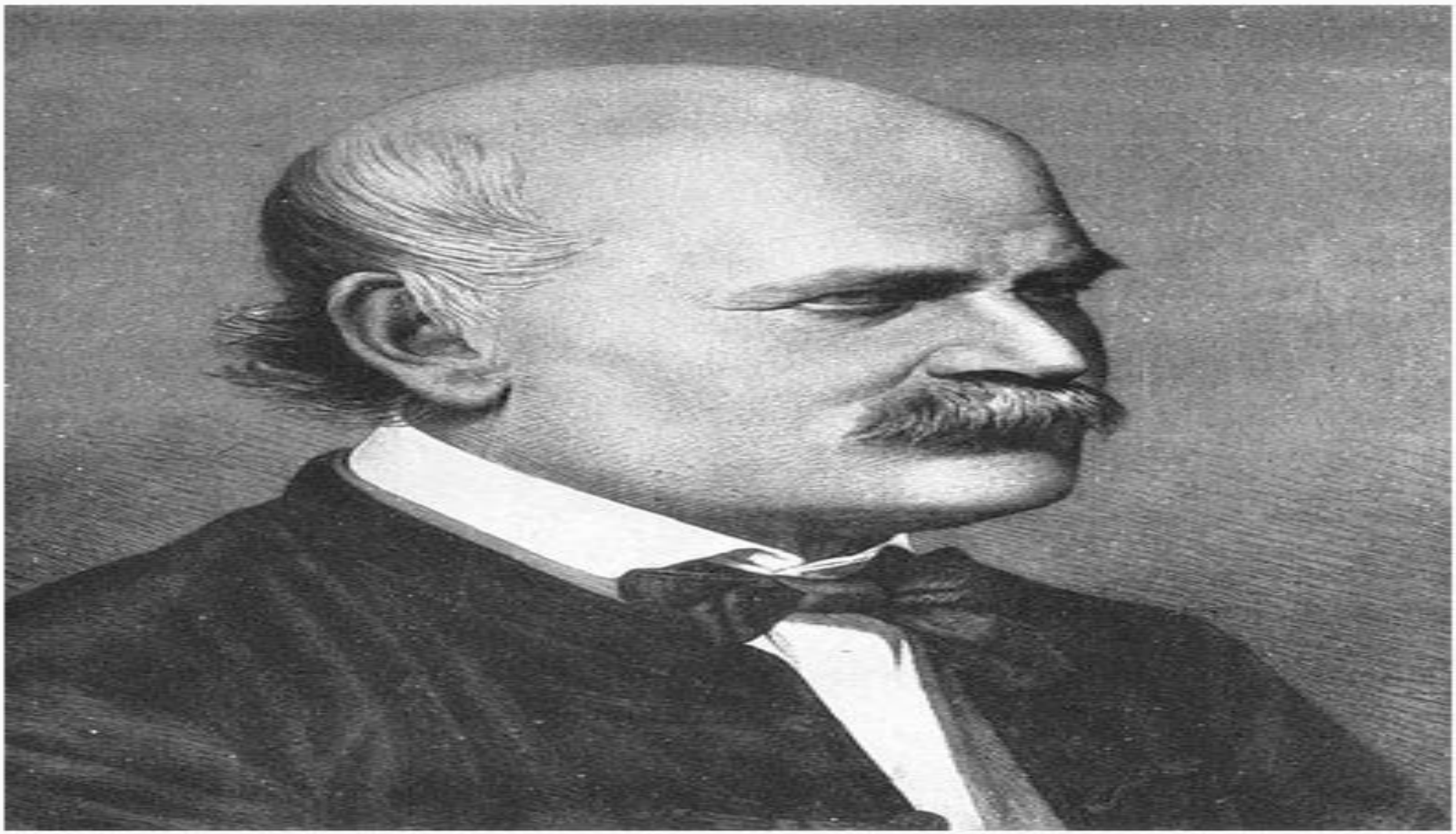
Forced Tapering During Pregnancy

- Goal- relief of withdrawal symptoms and cravings; **PREVENT RELAPSE**
- *Not recommended during pregnancy because of association with high relapse rates**
- If attempted, 2nd trimester under the supervision of a physician experienced in perinatal addiction treatment
- Coordination between the ObGyn and Addiction Medicine Specialist is important
    - *(*Am J Addict* 2008; 17:372-86)

Summary

- Early ID of pregnant opiate-addicted women improves mother and infant outcomes
- *Contraception counseling should be routine*
- Should be co-managed by the ObGyn & Addiction Medicine specialist
- *Medically supervised withdrawal should be discouraged during pregnancy*
- Monitor infants for NAS

Who is this?



Can We Safely Detox Pregnant Women?

- Towers, Craig; University of Tennessee at Knoxville
- *American Journal of Obstetrics and Gynecology*
- 301 Patients detoxed over 5.5 years
- Design: looking at fetal demise and pre-term labor for pregnant women being detoxed from opioids
- In Tennessee: > $60 million annually

Results

Four Methods of Detoxification	NAS Rate	Total
Acute Detox of Incarcerated Pts.	18.5%	108
Inpatient Detox with Intense Counseling	**17.4%**	23
Inpatient Detox without Counseling	**70.1%**	77
Slow Outpatient Buprenorphine Detox	17.2%	93

My Girls

My Boy

Contact Information

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