

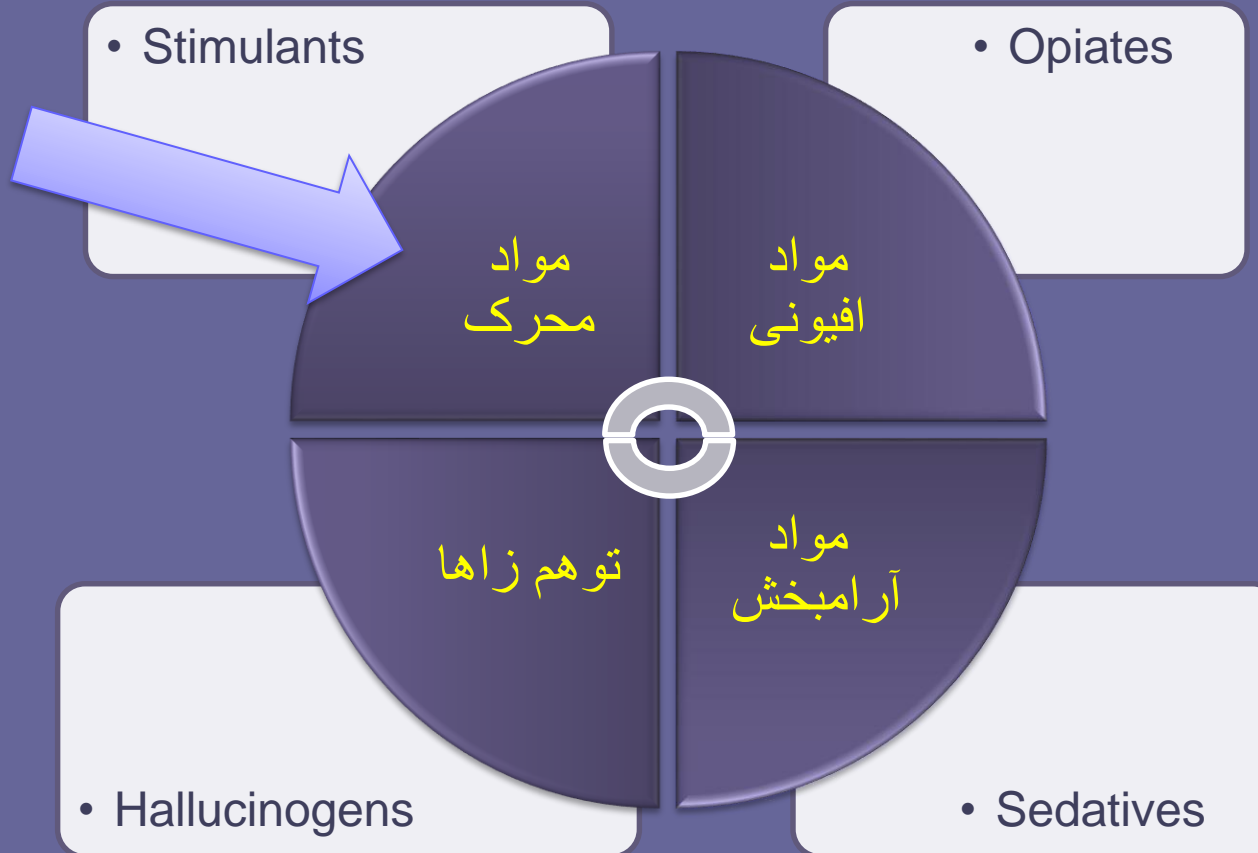
آبان ماه 1403



متامفتامین و مواد محرک

Stimulants

## دسته بندی انواع مواد مخدر



## مواد محرک عمده و مشکل آفرین در ایران

- Cocaine
- MDMA (ecstasy)
- Methylphenidate (Ritalin)
- Methamphetamine
- Amphetamine

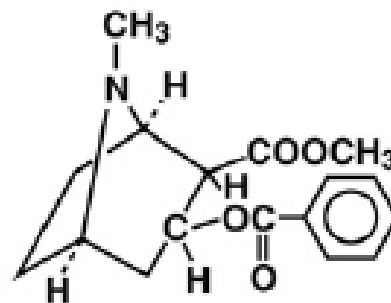
- کوکائین
- اکستازی (اکس، قرص شادی)
- متیل فنیدیت (ریتالین)
- متامفتامین (شیشه)
- آمفتامین

## مواد محرک عمده و مشکل آفرین در ایران

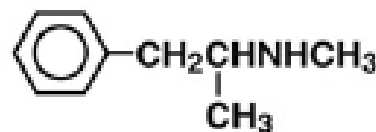
- **کوکائین >>> ترکیب طبیعی**
- اکستازی (اکس، قرص شادی)
- ریتالین
- متامفتامین (شیشه)
- آمفتامین

# Cocaine

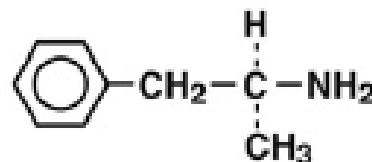
Cocaine



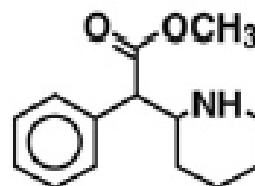
Methamphetamine



D-Amphetamine



Methylphenidate



کوکایین از گیاه "کوکا" گرفته می شود



*Erythroxylon coca*

*Erythroxylon coca*



## برگ های گیاه کوکا



0.25-0.75%  
cocaine



بومیان آمریکای لاتین برگ کوکا می جویدند

سابقه 8000 ساله



کاپلان: فقط 1,500 سال !!

## چای کوکا در بولیوی



# می توان عصاره کوکا را استخراج کرد



Stimulants



# می توان عصاره کوکا را استخراج کرد



## خمير كوكا



# پودر کواکین




# پودر کواکاین





## در داروهای مسکن استفاده می شود



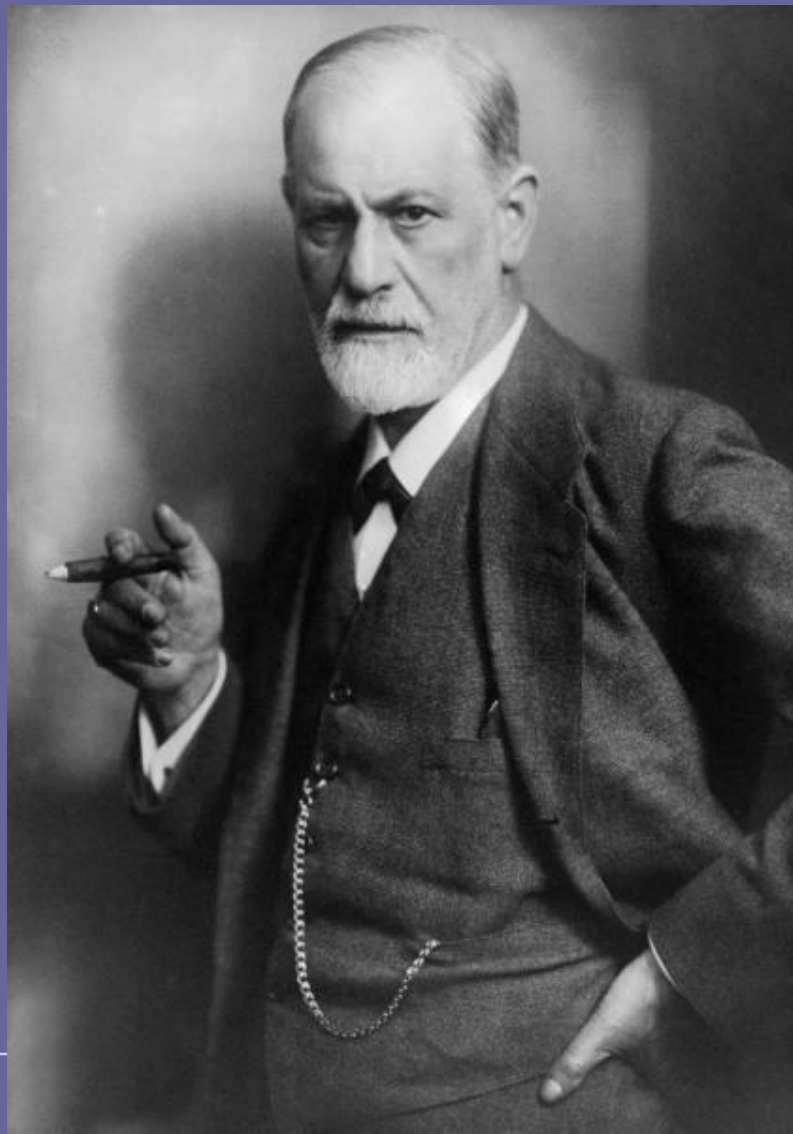
**COCAINE**  
**TOOTHACHE DROPS**  
Instantaneous Cure!  
PRICE 15 CENTS.  
Prepared by the  
**LLOYD MANUFACTURING CO.**  
219 HUDSON AVE., ALBANY, N. Y.

A vintage black and white advertisement for Cocaine Toothache Drops. The illustration on the left shows a young child in a hat and a woman in a bonnet and apron, both looking at a small wooden toy house. The background features a fence and a house. The text on the right is in a bold, serif font, advertising the product as an instantaneous cure for toothaches, priced at 15 cents, and prepared by the Lloyd Manufacturing Co. in Albany, N. Y.

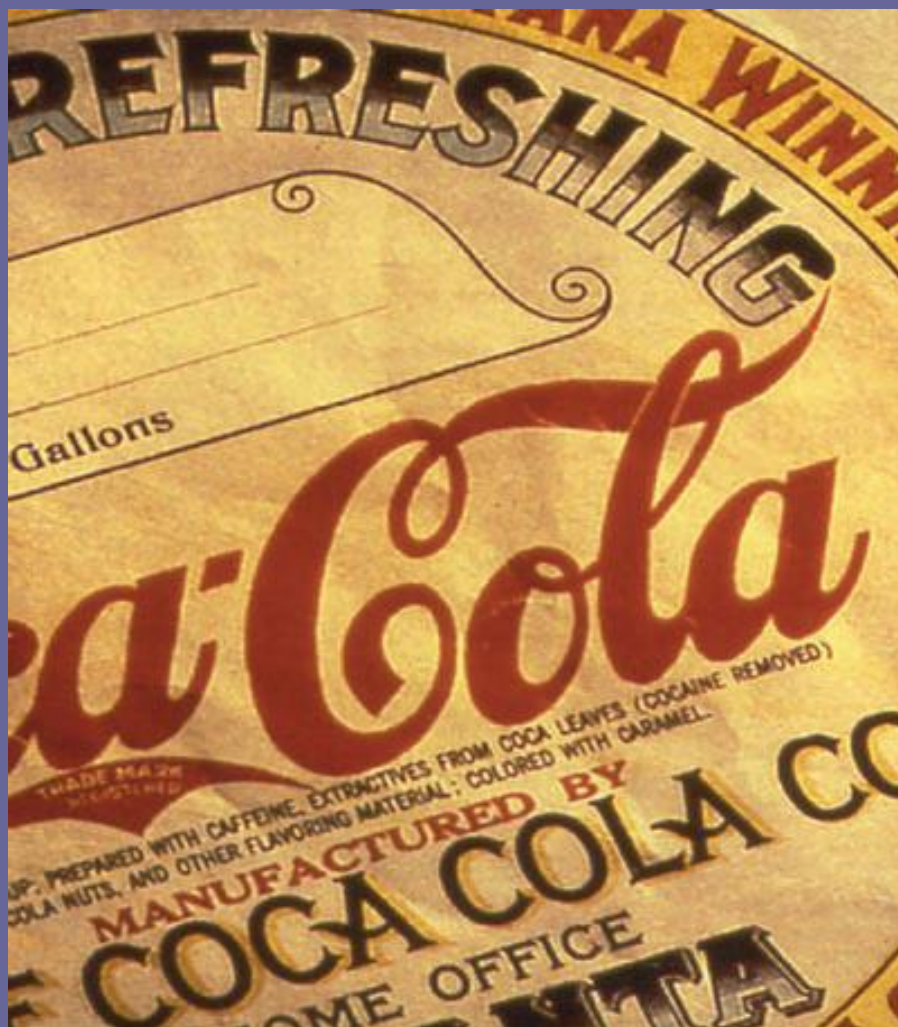
# شرلوک هولمز



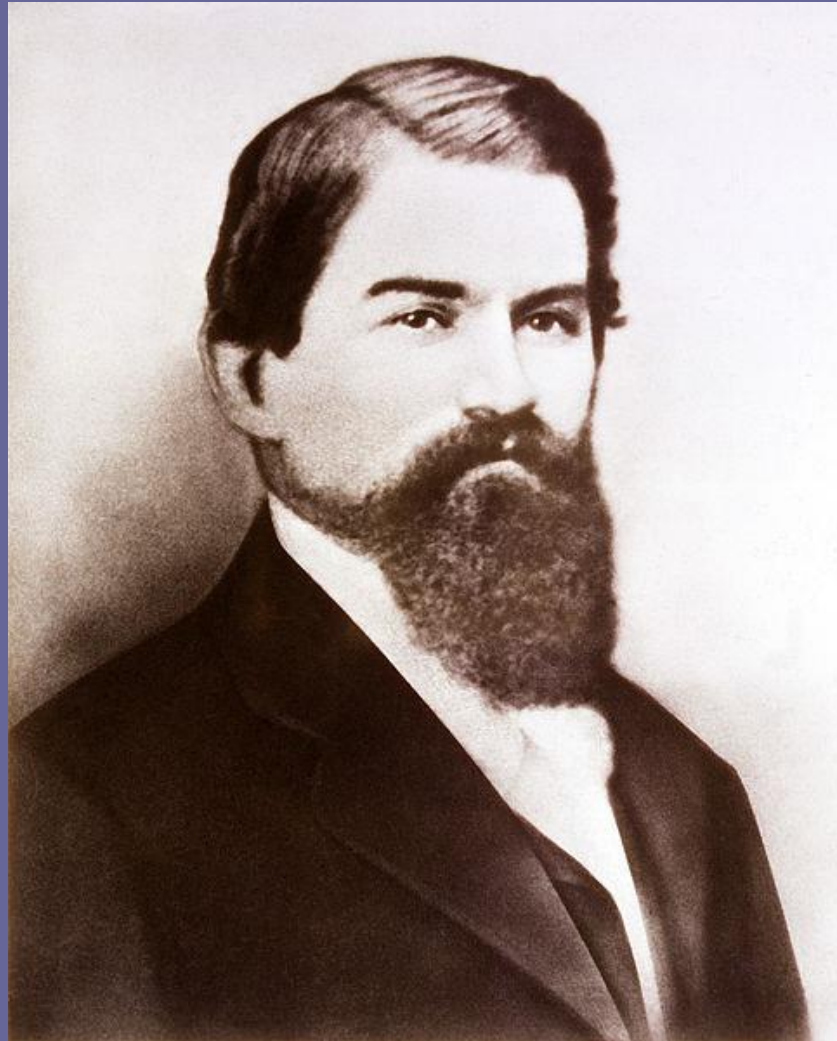
# فروید و کوکائین



# کوکاکولا هم در ابتدا دارای کوکائین بود



# John Pemberton





The Coca-Cola Bottle

## Cacao beans???



# Cacao beans???

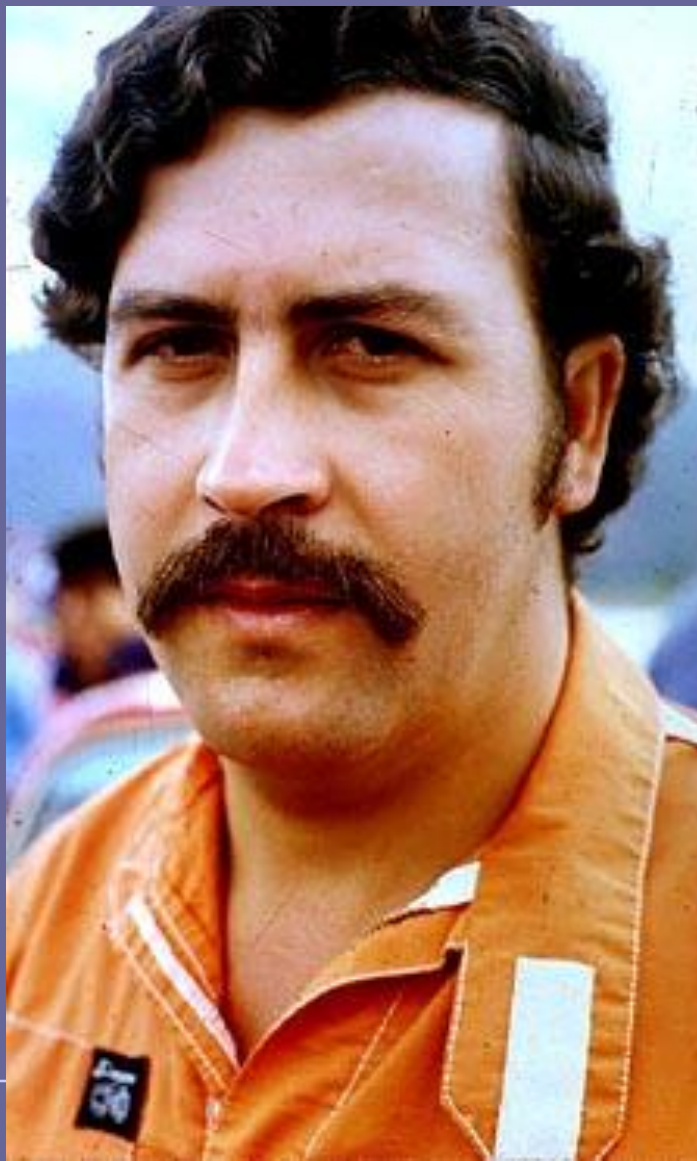




## استفاده مشامی از کوکائین



# Pablo Escobar



Stimulants

## Movie: Blow (2001)



# George Jung

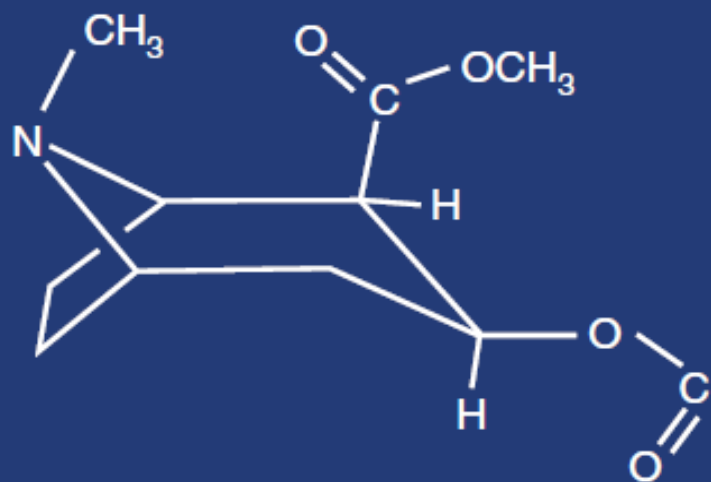


**George Jung portrayed by Johnny Depp  
Blow - 2001**



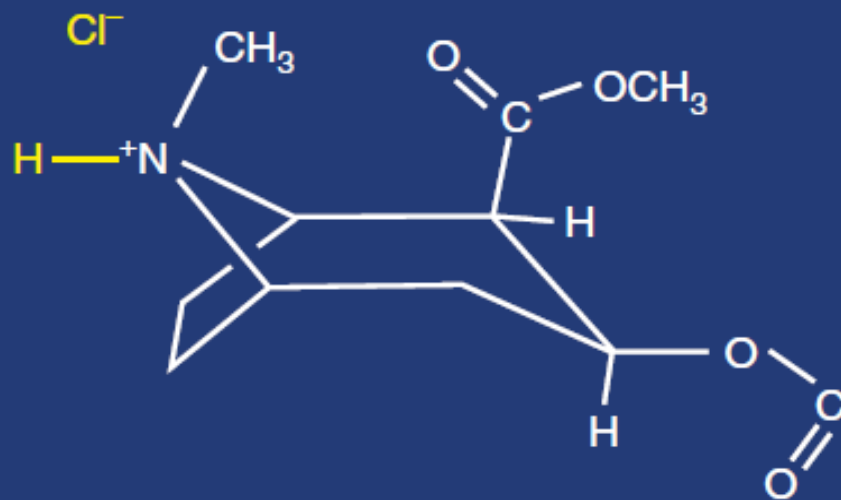
- قیمت کوکائین در سال های 1980 کاهش یافت
- نوع خالص و ارزانی از کوکائین بنام کراک تولید شد
- اوج سال های کوکائین و کراک در آمریکا سال 1985 بود که 3% جمعیت مصرف کننده بودند

## Stimulants



Cocaine

Base Form



Cocaine Hydrochloride

Salt Form

# Crack "Cocaine"



# کشیدن کراک کوکائین میسر است

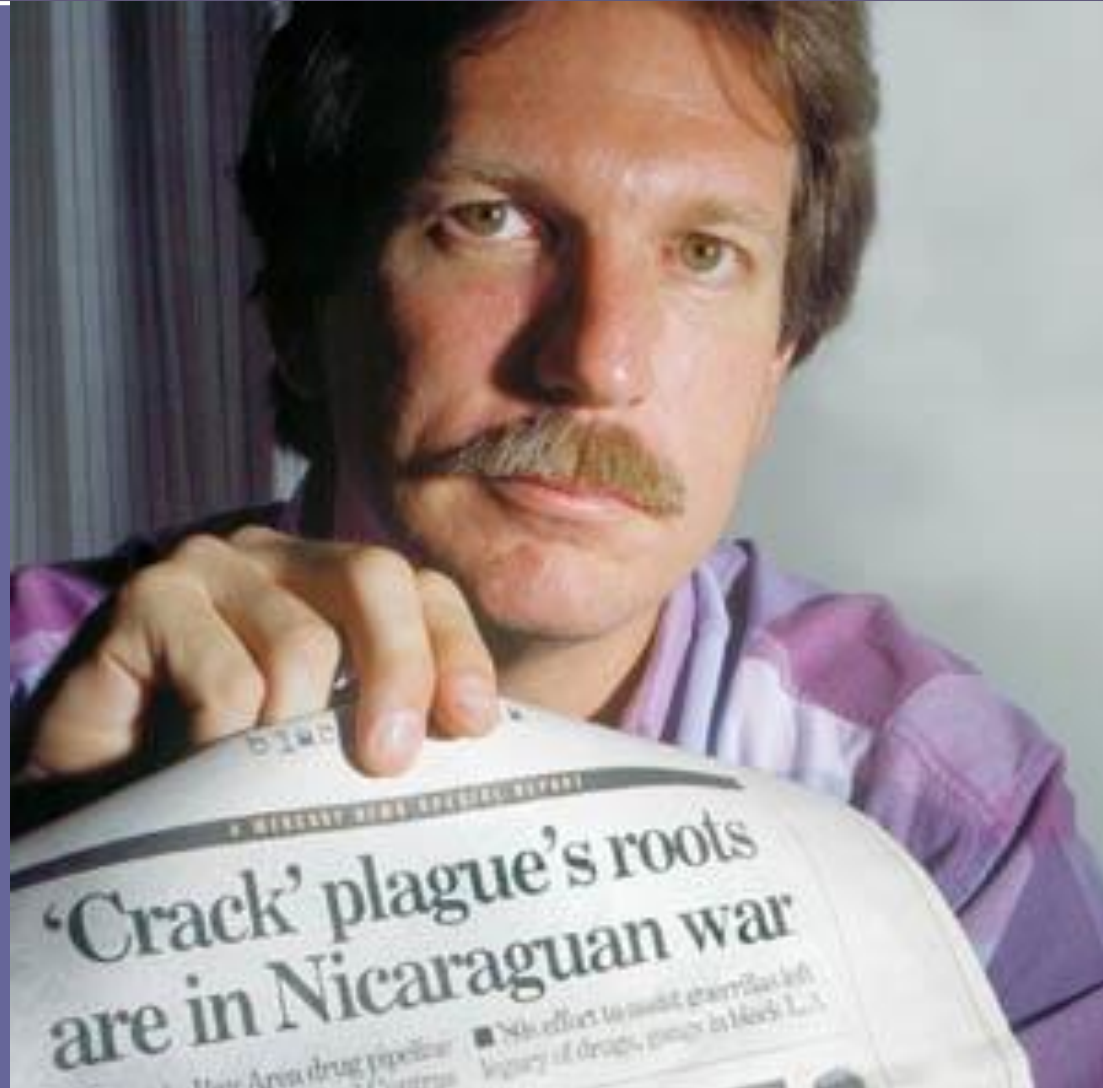




کراک کوکائین تمام دستاوردهای جنبش سیاهپوستان را به باد داد



## Gary Webb and the “Dark Alliance”





تفاوت در قدرت و طول اثر آنهاست

همه مواد محرک اثرات مشابهی ایجاد می کنند

## مواد محرک عمده و مشکل آفرین در ایران

تولید صنعتی با نیت  
بشر دوستانه داشتند

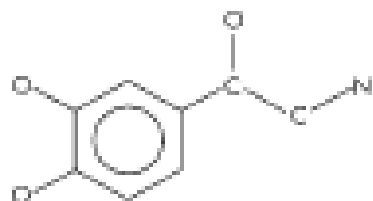
- کوکائین
- اکستازی (اکس، قرص شادی)
- ریتالین
- متامفتامین (شیشه)
- آمفتامین

## توليد أمفتامين Benzedrine

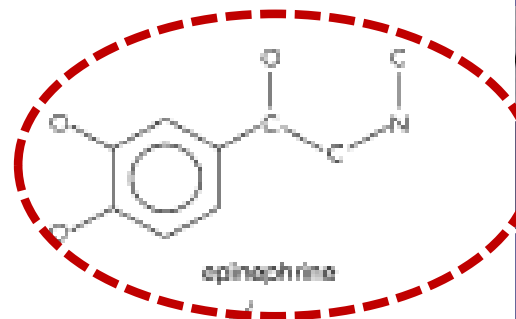


Gordon Alles  
1929

# Stimulants

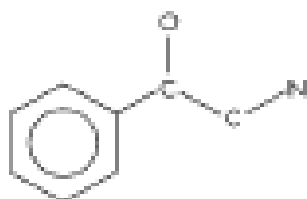


norepinephrine

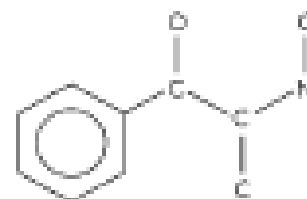


epinephrine

'adrenaline'  
(Adrenalin, Suprarenin, etc)



phenylethanolamine



ephedrine



amphetamine

(Benzedrine, Dexedrine, Proletamine, etc.)

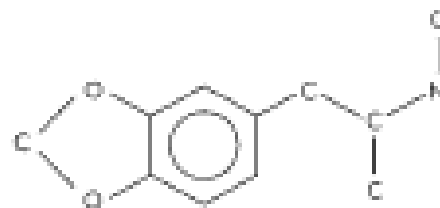


methamphetamine

(Methedrine, Provin, Desoxy, crank, crystal, ice, etc)



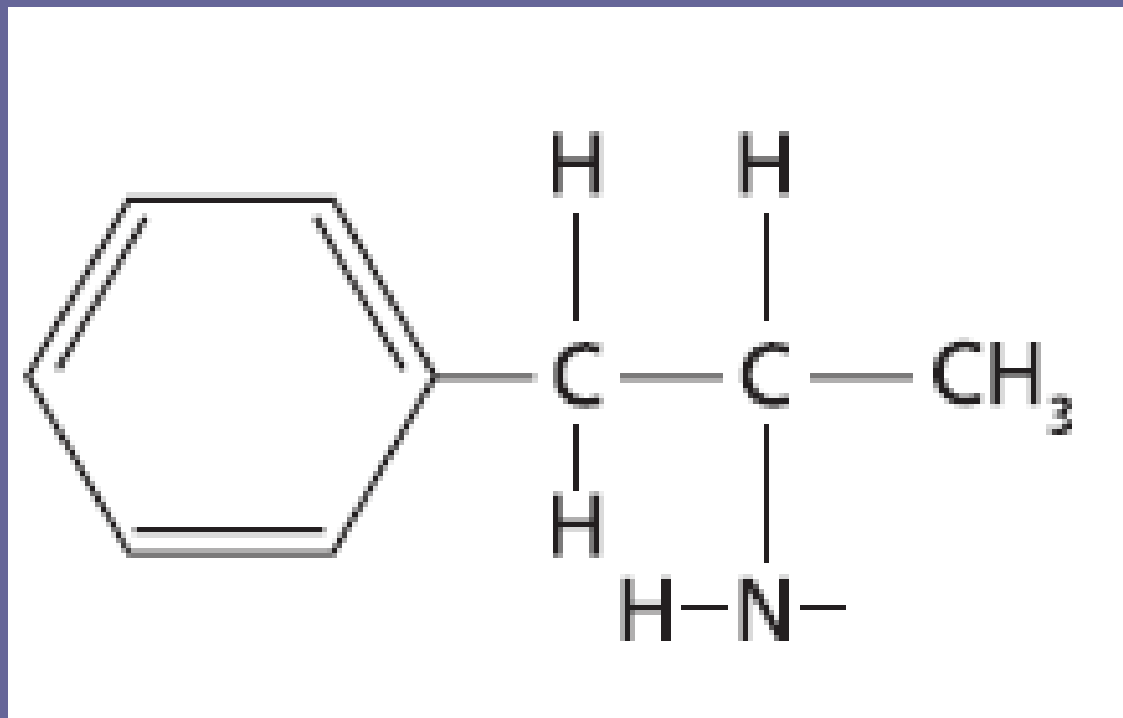
methylenedioxyamphetamine  
(MDA, Amphetaminine, ecstasy, etc)



methylenedioxyamphetamine  
(MDMA, Adam, ecstasy, etc)

Similarity to  
Adrenaline

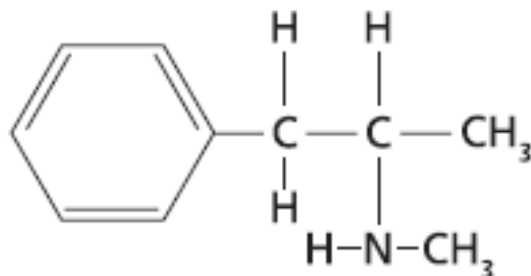
# آمفتامین ها مولکول ساده ای دارند



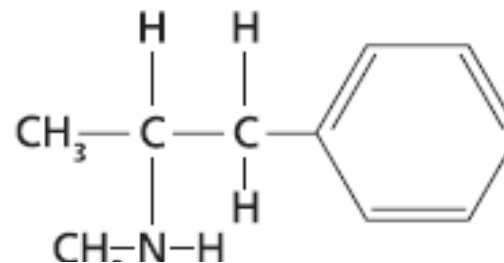
تنها نوع راست گردان توان ایجاد سرخوشی دارد

## THE METHAMPHETAMINE MOLECULE

The *l* stands for levo, from the Latin word *laevus* that means “on the left side.” The Latin word *dexter* means “on the right side,” and is represented by a *d*.<sup>9</sup>



d-methamphetamine



Desoxyephedrine  
l-methamphetamine



گیاه "افدرا" بعنوان پیش ساز آمفتامین ها



**Ephedra Sinica**

## آمفتامین دارویی ایده آل برای درمان سرماخوردگی!

تنگی نفس  
گرفتگی بینی  
احساس ضعف  
خواب آلودگی؟

افزایش هوشیاری  
کاهش خستگی  
بیخوابی  
افزایش فشار خون  
احساس خوب بودن  
کاهش اشتها


## آگهی برای بنزدرین

When  
A Head Cold  
Begins



### BENZEDRINE INHALER

A VOLATILE VASOCONSTRICTOR

 "Benzedrine Inhaler" is particularly valuable when used at the onset of a head cold—at the very first sneeze. It improves respiratory ventilation promptly, thus helping to re-establish normal breathing. It also assists in maintaining drainage of the nasal accessory sinuses—an important factor in preventing acute attacks from becoming chronic. The early use of "Benzedrine Inhaler" is especially indicated for your patients who catch cold easily.



Each tube is packed with amphetamine, S.S.F., 0.225 Gm., oil of lavender, 0.207 Gm., menthol, 0.232 Gm. "Benzedrine" is S.S.F.'s trademark, Reg. U. S. Pat. Off., for their nasal inhaler and for their brand of amphetamine. Amphetamine was formerly known as benzylmethylcarbinone, Pat. Nos. 1879003, 1921424 and 2012408.

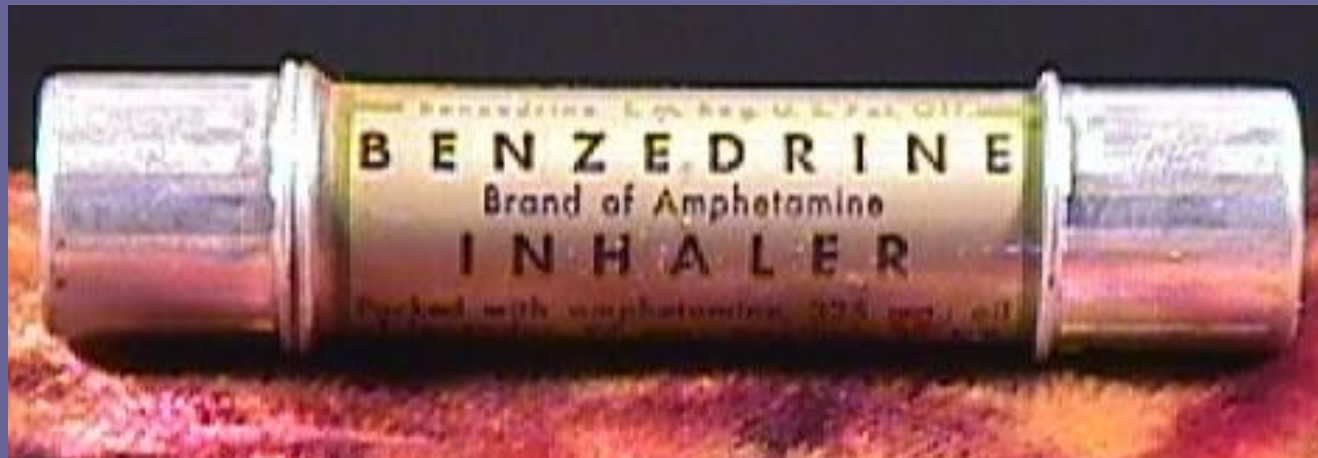
SMITH, KLINE & FRENCH LABORATORIES, PHILADELPHIA, PA.

EST. 1843

# بنزدرين (Benzedrine) شرکت SKF



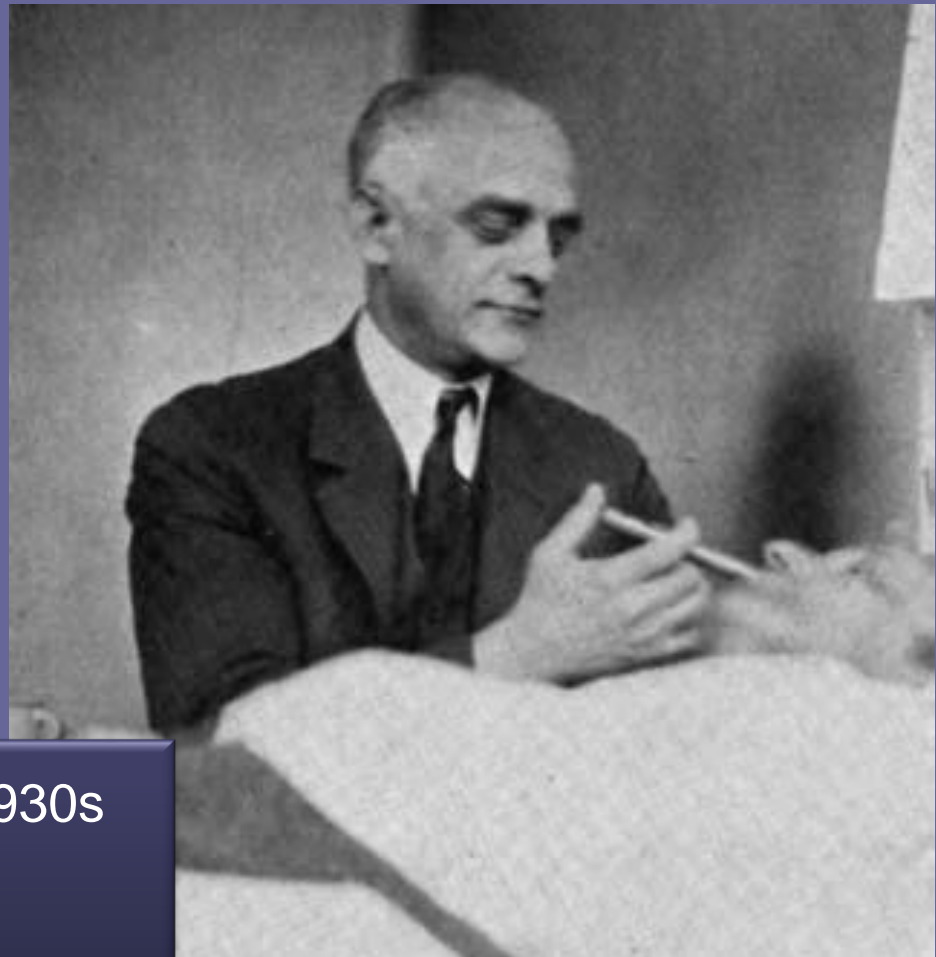
## بنزدرین برای استنشاق



## تا حوالی 1940 مشخص شده بود که:

- افزایش انرژی
- کاهش خستگی
- بهبودی افسردگی
- کاهش نیاز به خواب
- افزایش اعتماد به نفس
- افزایش دقت و تمرکز
- رفع ترس و اضطراب
- بهبود توان کار

## استفاده از آمفتامین برای افسردگی



Abraham Myerson 1930s

“Anhedonia”

## کاربرد آنها با جنگ آشکار شد!



Bundesarchiv, Bild 1011-048-5188-17  
Foto: Opitz | 1943/1944 Winter



# کاتالینا (Catalina) و پروازهای 36 ساعته!



## Stuka یا جنگنده های شیرجه رونده



## مشکلات هواپیماها و خلبان ها در جنگ دوم جهانی

- سرمای ارتفاع 40 هزار پا
- رقیق بودن اکسیژن در ارتفاع بالای 18 هزار پا
- خستگی و خواب آلودگی پروازهای طولانی (تا 36 ساعت)
- مسئله شتاب جاذبه (g)
- نیاز به دقت بالا و هدف گیری دقیق



- در 3 ماه بهار 1940، آلمانی ها 45 میلیون قرص متامفتامین مصرف کردند
- قرص آلمانی متامفتامین بنام Pervitin معروف بود

# Wakey-wakey



## FOR MEN IN COMBAT

*when the going gets tough*

To save the lives of men in combat through sustaining their mental efficiency by overcoming the symptoms of fatigue, BENZEDRINE SULFATE TABLETS are available for issue in the Armed Forces.

The tablets are issued for combat use under strict medical supervision, and only on those occasions when intense or prolonged

operations, without opportunity for normal rest, are anticipated.

Although this is, of course, a tactical rather than a therapeutic use of Benzedrine Sulfate, the physician will, we believe, be interested to know that this familiar, clinically established drug has such a unique military application.



**BENZEDRINE  
SULFATE TABLETS**

racemic amphetamine sulfate

SMITH, KLINE & FRENCH LABORATORIES—PHILADELPHIA, PA.





و اما

استفاده گسترده بعد از جنگ جهانی!

# دارویی برای افسردگی ملایم و ضعف اعصاب

## The Patient With Mild Depression

THE patient with mild depression usually presents a clinical picture characterized by the following symptoms:

(1) apathy, discouragement and undue pessimism; (2) subjective difficulty in thinking, in concentrating and in initiating and accomplishing usual tasks; (3) subjective sensations of weakness and exhaustion; (4) hypochondria (undue preoccupation with vague somatic complaints such as palpitation or gastro-intestinal disorders which may have no organic basis).

If, in the judgment of the physician, such a patient will be benefited by a sense of increased energy, mental alertness and capacity for work, the administration of 'Benzedrine Sulfate Tablets', with their striking effect upon mood, will often accomplish the desired result. In favorable cases, the drug will also make the patient more accessible to the physician.

'Benzedrine Sulfate Tablets' should, however, be used only under the direct supervision of the physician, and their use by normal individuals to produce the above effects should not be permitted. In depressive psychopathic states the patient should be institutionalized.

*Initial dosage should be small, ¼ to ½ tablet (2.5 to 5 mg.). If there is no effect this should be increased progressively. "Normal Dosage" is from ¼ to 2 tablets (5 to 20 mg.) daily, administered in one or two doses before meals.*

  
**BENZEDRINE  
SULFATE  
TABLETS**

Each 'Benzedrine Sulfate Tablet' contains amphetamine sulfate, S.E.F., 10 mg. (approximately 1/4 gr.)



SMITH, KLINE & FRENCH LABORATORIES • PHILADELPHIA, PA.

REV.  1941

# زنان شاغل

IN MILD PSYCHOGENIC DEPRESSIVE STATES . . .

**this**  
*IN MINUTES!*  
... WITH

**RAPHETAMINE  
PHOSPHATE**  
*Brand of Amphetamine Phosphate*

**CHEERFULNESS**

**MENTAL  
ALERTNESS**

**OPTIMISM**

● Smooth, fast acting Raphetamine Phosphate aids in restoring mental alertness, cheerfulness and optimism in mild psychogenic depressive states . . . and in the management of obesity.

With contraindications chiefly limited to hypertension, cardiac defects, or hypersensitivity to sympathic-like compounds, benefits may be prolonged.

Newly accepted parenteral Raphetamine Phosphate can successfully be used in creating barbiturate intoxication because of its immediate action.

Clinical supply of both dosage forms available on request. Write to Medical Service Department, E. J. Strassenburgh Co., Rochester 14, N. Y.

**parenteral:** Raphetamine Phosphate, parenteral, containing 10 mg. meso-salt racemic-amphetamine phosphate per cc. in sterile aqueous solution is available in 10 cc. multidose vials.

**tablet:** Raphetamine Phosphate tablets containing 5 mg. meso-salt racemic amphetamine phosphate per tablet are available in bottles of 100, 500 and 1000.

**Strassenburgh**  
SINCE 1914



*the happy fat man: a popular misconception*



That the fat man is a happy man is an example of widely accepted yet fallacious folk lore. Physicians know not only that overweight takes years from life, but also that it usually is the result of overeating—often due to underlying mental depression.

In overweight, Council-accepted 'Benzedrine' Sulfate will help:

1. Curb the fat man's appetite and lower his level of satiety so that he sticks to his low-calorie diet
2. Counteract the mental depression that may be the cause of his overeating

Remember, also, that 'Benzedrine' therapy makes unnecessary the use (and risk) of such potentially dangerous drugs as thyroid. *Smith, Kline & French Laboratories, Philadelphia*

## Benzedrine<sup>®</sup> Sulfate, N.N.R.

one of the fundamental drugs in medicine

U.S. Reg. U.S. Pat. Off. for certain combinations with, S.K.F.



***"...if the individual is depressed..."***

"... if the individual is depressed or anhedonic ... you can change his attitude ... by physical means just as surely as you can change his digestion by distressing thought ... In other words, drugs and physical therapeutics are just as much psychic agents as good advice and analysis and must be used together with these latter agents of cure."

Wheeler, L. — *Anhedonia* —  
Am. J. Psychiat., July, 1922.

When this was written—in 1922—the only stimulant drugs employed in the treatment of simple depression were of limited effectiveness.

Only in the last decade has there been available—in Benzedrine Sulfate—a therapeutic weapon capable of alleviating depression, overcoming "chronic fatigue" and breaking the vicious circle of anhedonia.



**BENZEDRINE  
SULFATE TABLETS**

(Generic combination tablet)

SMITH, KLINE & FRENCH LABORATORIES, PHILADELPHIA, PA.



### why is this woman tired?

**She may be tired for either of two reasons:**

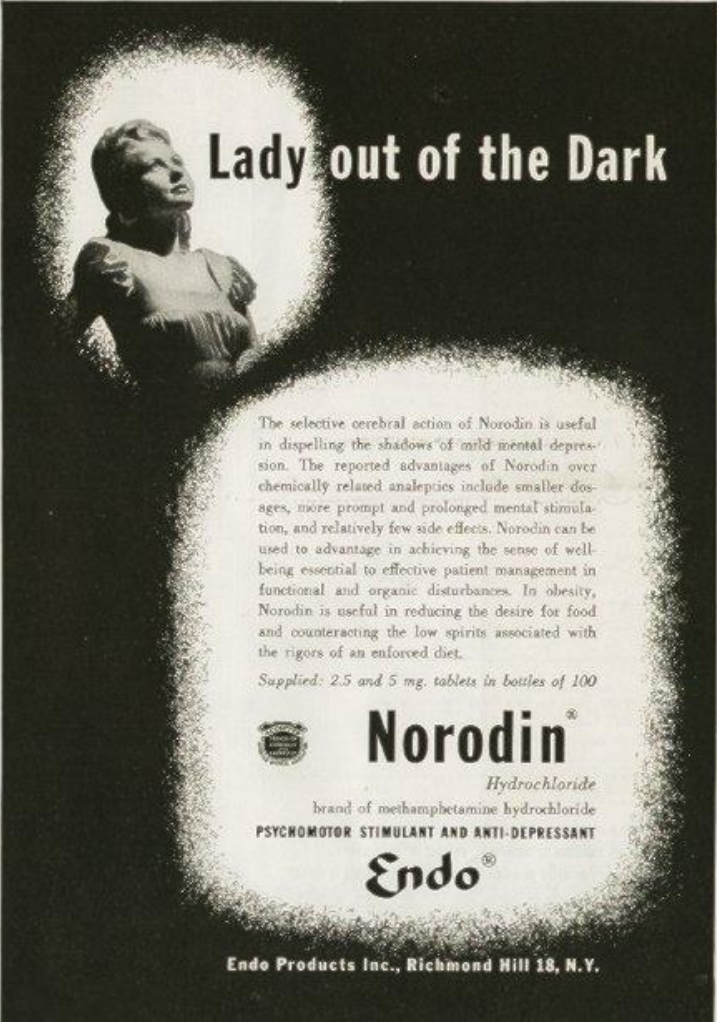
- \* because she is physically overworked. If this is the case, you prescribe rest, because rest is the only cure for this kind of physical tiredness.
- \* because she is mentally "done in". Many of your patients—particularly housewives—are crushed under a load of dull, routine duties that leave them in a state of mental and emotional fatigue. For these patients, you may find 'Dexedrine' an ideal prescription. 'Dexedrine' will give them a feeling of energy and well-being, renewing their interest in life and living. Dexedrine\* (dextro-amphetamine sulfate, S.K.F.) is available as tablets, elixir, and Sponule\* capsules (sustained-release capsules, S.K.F.) and is manufactured by Smith, Kline & French Laboratories, Philadelphia.

\*U.S. Pat. Reg. U.S. Pat. Off.      †Patent Applied For.

# آگهی برای Dexedrine

# آگهی برای Methamphetamine


J. A. M. P.  
Nov. 23, 1950, A.P.C. 47



## Lady out of the Dark

The selective cerebral action of Norodin is useful in dispelling the shadows of mild mental depression. The reported advantages of Norodin over chemically related analeptics include smaller dosages, more prompt and prolonged mental stimulation, and relatively few side effects. Norodin can be used to advantage in achieving the sense of well-being essential to effective patient management in functional and organic disturbances. In obesity, Norodin is useful in reducing the desire for food and counteracting the low spirits associated with the rigors of an enforced diet.

Supplied: 2.5 and 5 mg. tablets in bottles of 100



### Norodin<sup>®</sup>

Hydrochloride  
brand of methamphetamine hydrochloride  
PSYCHOMOTOR STIMULANT AND ANTI-DEPRESSANT

### Endo<sup>®</sup>

Endo Products Inc., Richmond Hill 18, N. Y.

for proved antidepressant effect—  
both rapid and prolonged.

**DEXAMYL® SPANSULE®**

brand of dextro-amphetamine and amobarbital      brand of sustained release capsules



'Dexamyl' has been used successfully for over a decade, and in sustained release form for more than six years. Just one 'Dexamyl' Spansule capsule, taken in the morning, provides daylong therapeutic effect. And mood elevation is usually apparent within 30 to 60 minutes.

'Dexamyl' is of significant value in

depressed and verbally inhibited patients. Drayton' states, "Not only does ['Dexamyl'] exert a direct mood effect, so that the shadow of depression is lifted, but it also results in making the patient more approachable and communicative."

1. Drayton, W., Jr.: Pennsylvania M. J. 54:949.

leaders in  
psychopharmaceutical research

**SMITH  
KLINE  
&  
FRENCH**

آگهی برای Dexamyl

Dexamyl:

Amphetamine + amobarbital

# آگهی داروی چاقی در سال 1970!



**Victim of Overeating and "Oversitting"**

**BIPHETAMINE**  
A "STRASBURG" RELEASE ANORETIC RESIN

- 10-14 Hour Appetite Curb
- 10-14 Hour Mild Invigoration
- Predictable Weight Loss ... a comfortable 1 to 3 lbs. a week in 9 out of 10 cases

In many instances both appetite limitation and mild invigoration ("Biphetaimine") are required to effect the balance between caloric intake and energy output necessary for predictable weight reduction and control. Since "Strasburg" release is employed, the desired therapeutic action is uniform, predictable and comfortable.

Biphetaimine may be prescribed for the obese hypertensive, arthritic, diabetic, pregnant, menopausal, aged, or pre-operative patient. Use with care in patients hypersensitive to sympathomimetic compounds, in cases of coronary disease or severe hypertension.

**BALANCE**

• Single Capsule Daily Dose 10 to 14 hours before retiring

LIST NO. 878	LIST NO. 878	LIST NO. 888
<b>BIPHETAMINE</b> "20" Resin	<b>BIPHETAMINE</b> "12 1/2" Resin	<b>BIPHETAMINE</b> "10 1/2" Resin
Each black capsule contains: Methamphetamine 10 mg. Mephentermine 10 mg. 60 mg. Resin	Each black and white capsule contains: Methamphetamine 12 1/2 mg. Mephentermine 12 1/2 mg. 60 mg. Resin	Each white capsule contains: Mephentermine 10 1/2 mg. Methamphetamine 10 1/2 mg. 60 mg. Resin

At Day, Caution Federal law prohibits dispensing without prescription.

**STRASBURG LABORATORIES**  
MINNAPOLIS, MINN. U.S.A.  
Originators of "Strasburg" (sustained action) Release



*"Either lose 45 pounds or wait for 6 more inches of snow!"*

**OBETROL**  
for weight control

Each OBETROL (35 tablet) contains: Methamphetamine Sulfate 2.5 mg.; Methamphetamine Hydrochloride 2.5 mg.; Amphetamine Sulfate 2.5 mg.; Salsolol Hydrochloride 2.5 mg.; 65 mg. M.C.A.-35 tablet contains twice this potency. Pat. #2,749,000.

The combination of amphetamines may be useful as an adjunct in the management of certain forms of obesity where an appetite depression is indicated.

**Contraindications:** Hypertension, advanced arteriosclerosis, coronary artery disease, cardiac arrhythmias, peripheral vascular disease, states of acute myocardial infarct, excitement, agitated depression, hyperthyroidism, idiosyncrasy to amphetamines, concurrent administration of a tricyclic antidepressant inhibitor. **Precautions:** Use with caution in individuals with anorexia, insomnia, vasomotor instability, seizures, psychopathic personality, a history of alcohol or sexual tendencies, and individuals who are known to be hypersensitive to sympathomimetic agents, or emotionally sensitive individuals who are known to be susceptible to drug abuse. Certain myocardial disease inhibitors may potentiate the action of Obetrol. **Side Effects:** The most common side effects observed with the use of amphetamines include nervousness, restlessness, euphoria, insomnia, dryness of mouth, nausea, vertigo, somnolence, and headache.

**Dosage and Administration:** Initial adult dose is one-half to one "Obetrol-35" tablet daily, preferably one-half to one hour before meals. This may be gradually increased to one "Obetrol-35" or "Obetrol-65" tablet daily to three times daily as indicated. **Supplied:** Tablets scored, in bottles of 100, 500, and 1000.

**REQUEST SAMPLES AND LITERATURE**

OBETROL, PHARMABIOGENIX • BROOKLYN, N.Y. 11207

OBETROL  
35  
65  
100  
500  
1000

Obetrol  
داروی  
Methamphetamine

# Thanks to Dexamyl

Brand of  
Smith-Kline Beecham

she can say "No thank you"  
to the praline sundae

Dexamyl does more than most anorectics. Because it not only curbs appetite but also lifts mood, Dexamyl can give the discouraged dieter the confidence she needs to stay on her diet.

The mood lift with Dexamyl can make the difference between the success or failure of her diet plan.

Formula: Each Dexamyl Capsule (brand of anorectic praline sundae) for 100 mg of Dexamyl (brand of anorectic praline sundae) and 1 g of anorectic praline sundae. Each Dexamyl Capsule (brand of anorectic praline sundae) contains 10 mg of Dexamyl (brand of anorectic praline sundae) and 100 mg of anorectic praline sundae.

Proper instructions and side effects. Use with caution in patients with known or suspected liver or kidney disease. In patients with known or suspected liver or kidney disease, use with caution. In patients with known or suspected liver or kidney disease, use with caution.

Before prescribing, see SMN product prescribing information.

Smith-Kline & French Laboratories



Thanks to Dexamyl  
She can say "No thank  
you"  
To the Pralliner Sundae

and there's a

# BRIGHT SIDE


for your patients, too!



"He used to lie there and mope. Now he likes to see people!"

**DEXAMYL**<sup>®</sup> Spansule<sup>®</sup> capsules • Tablets • Elixir  
 brand of dextro-amphetamine and amobarbital

"Dexamyl" brightens mood in the convalescent patient—helps speed him on the way to recovery.

 **SMITH KLINE & FRENCH LABORATORIES, PHILADELPHIA**

## آگهی برای Dexamyl



اما مصرف غیر مجاز بسرعت افزایش یافت

مصرف مجاز محرک ها از سال 1970 بشدت  
کنترل گردید!

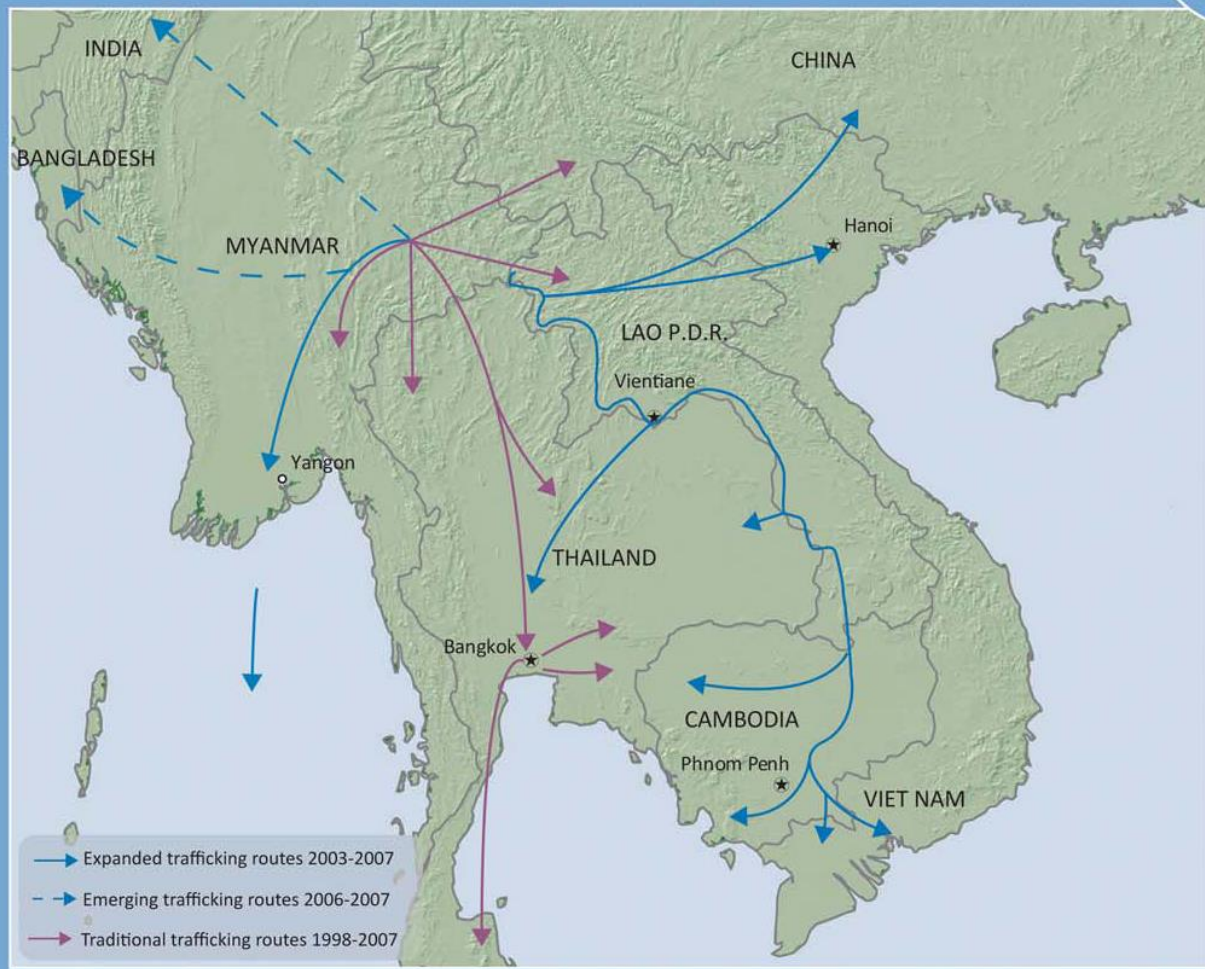


# آزمایشگاه تولید متامفتامین در اندونزی



سابقاً تایلند محل عمده تولید و توزیع بود اما اکنون به همه جا گسترش یافته است

Greater Mekong Subregion: primary methamphetamine trafficking routes

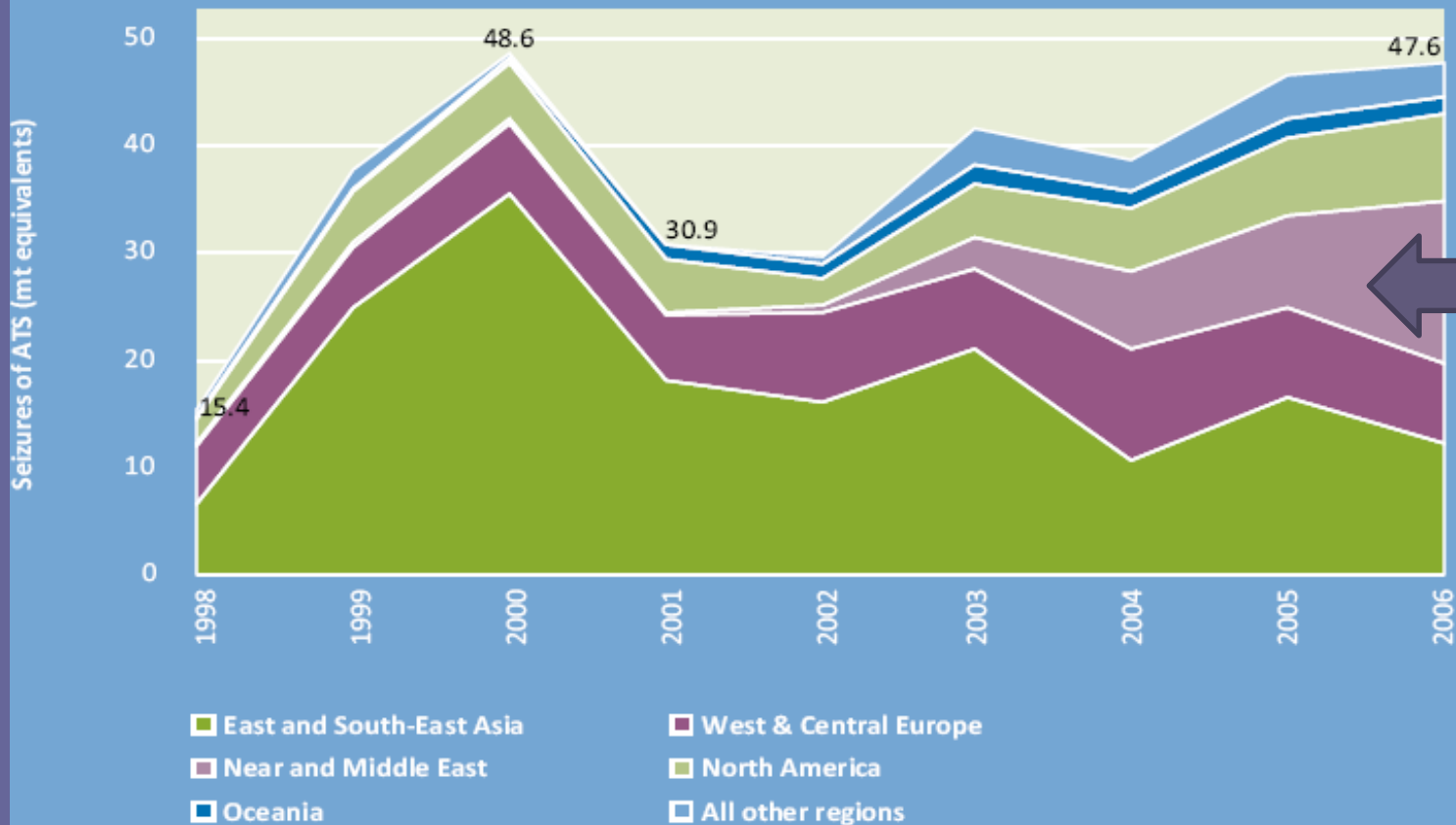




- بعد از حشیش، متامفتامین شایع ترین ماده مخدر مورد سوء مصرف در جهان است
- مراجعات طبی برای درمان متامفتامین در طی سال های اخیر بشدت بالا رفته است.

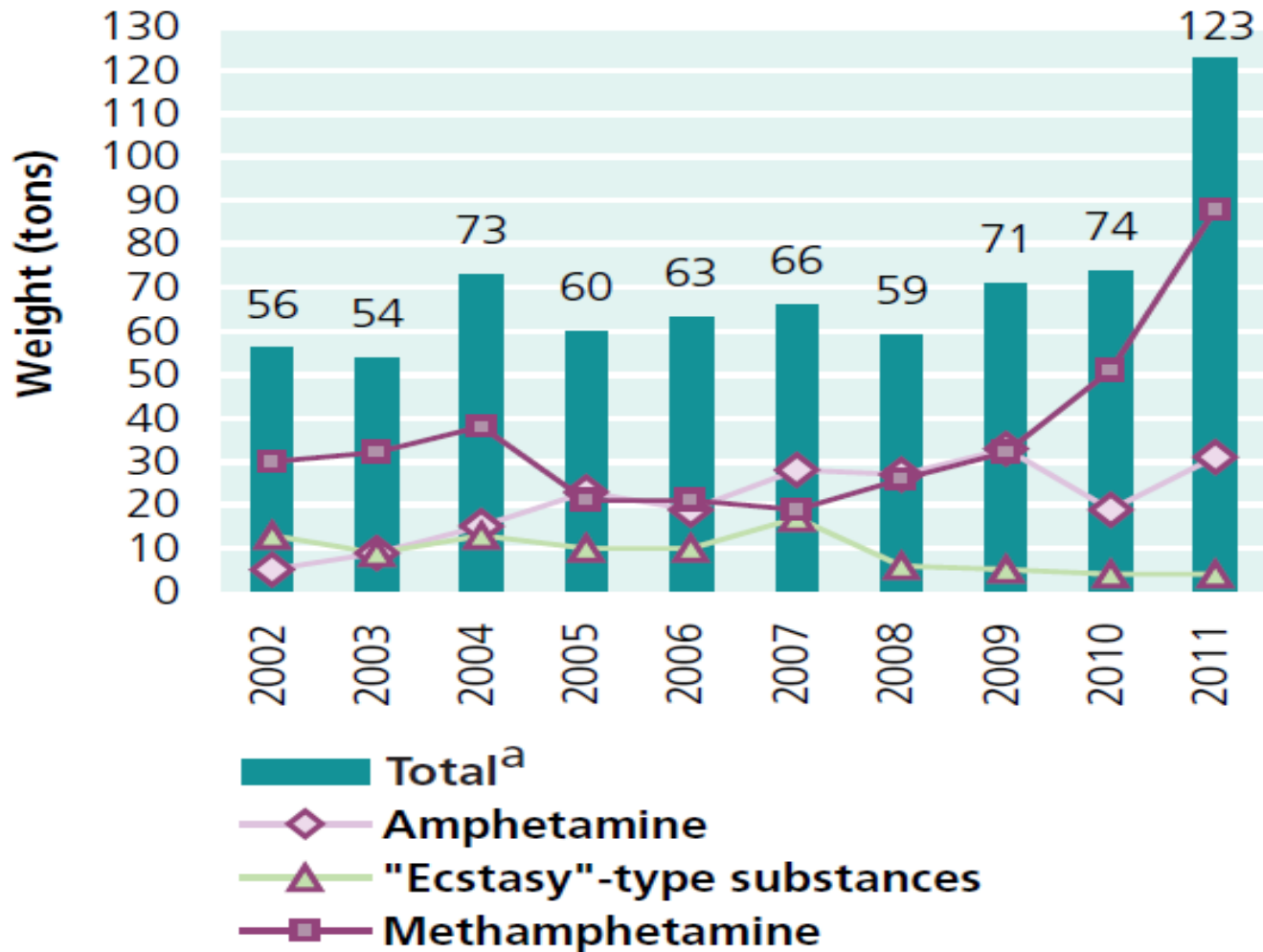
در خاورمیانه سریعاً رو به گسترش است!

ATS seizure trends by region 1998-2006



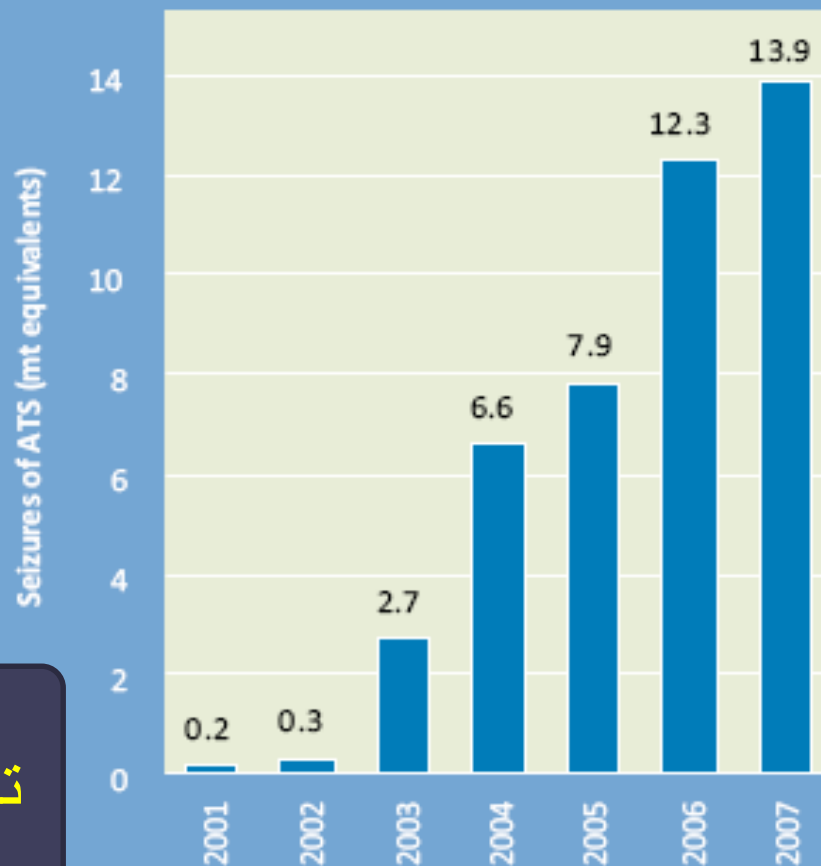
## رشد متامفتامین

**Fig. 66.** Global seizures of amphetamine-type stimulants, 2002-2011



## کشفیات در عربستان

Saudi Arabia: seizures of ATS 2001-2007



تا 400 هزار مصرف  
کننده در عربستان

## متامفتامين



## Stimulants

تشکر از دکتر حامد اختیاری  
بابت تهیه عکس ها





تشکر از دکتر حامد اختیاری  
بابت تهیه عکس ها



## Stimulants

تشکر از دکتر حامد اختیاری  
بابت تهیه عکس ها



## Stimulants

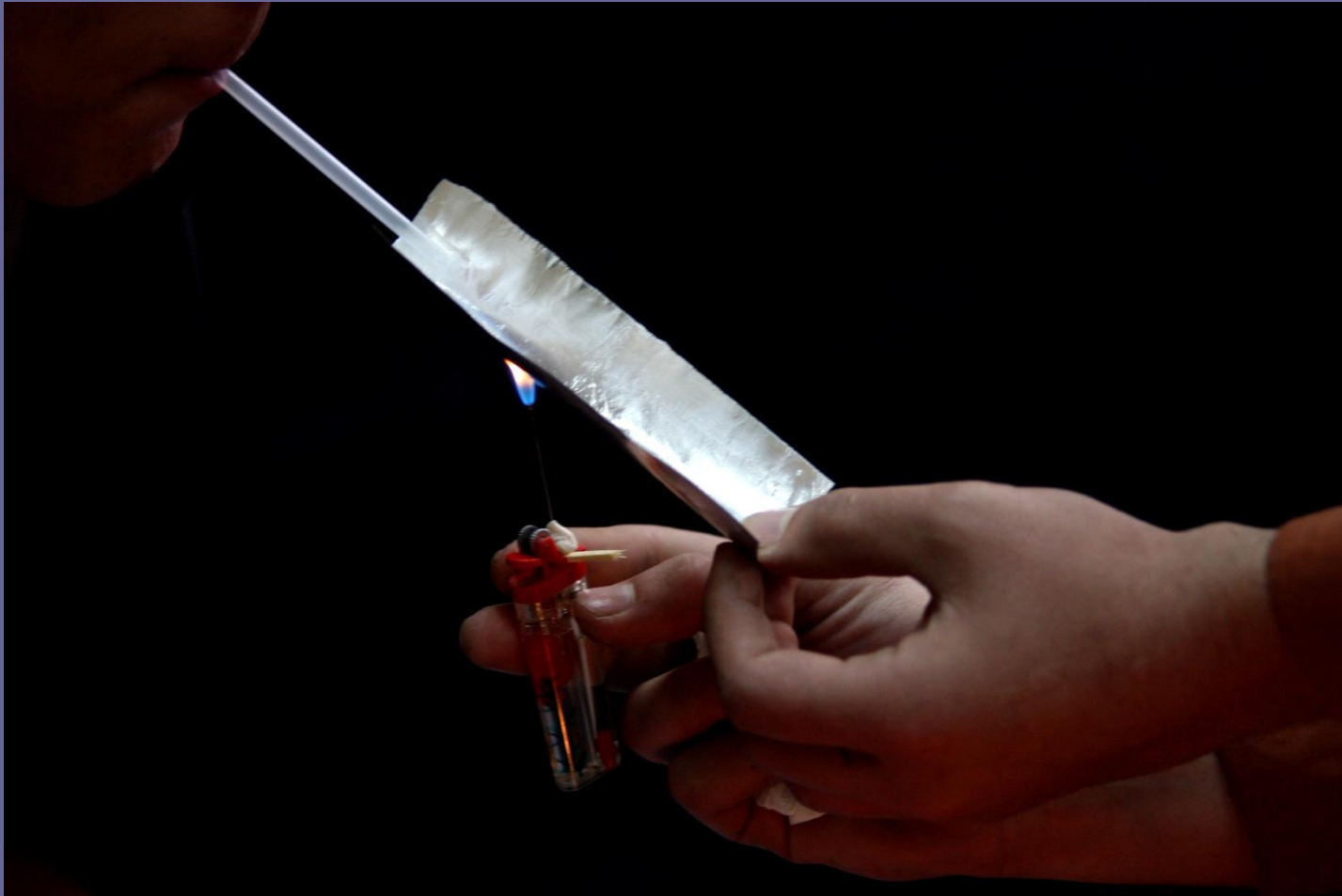
تشکر از دکتر حامد اختیاری  
بابت تهیه عکس ها



## Stimulants



## Stimulants



## Stimulants





# آمفتامین





# اکستازی



## روش های عمده مصرف

- Injection
  - Smoking
  - Ingestion
  - Snorting
  - Others
- تزریق
  - کشیدن یا تدخين
  - خوردن
  - مشامی (دماغی)
  - سایر ( از جمله موضعی)

## مکانیسم اثر

### Amphetamines

- Dopamine and Norepinephrine release from synapses
- Block of DO, SE and NE reuptake

### Cocaine

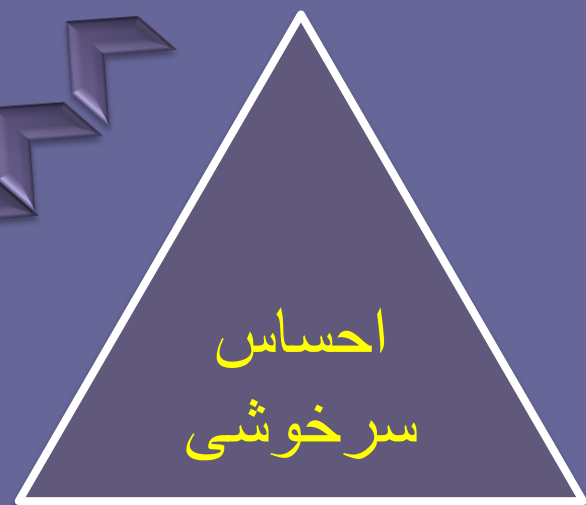
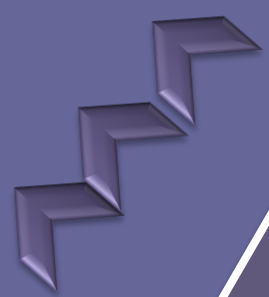
- Block Dopamine, SE and NE reuptake  
[DAT: presynaptic dopamine transporter]



اثرات مصرف

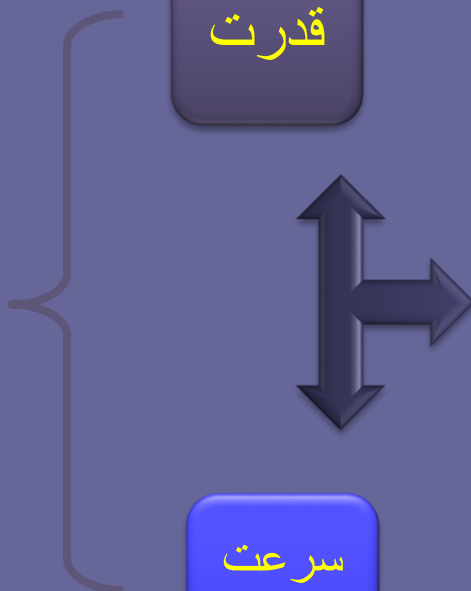


قدرت اعتیاد  
آوری



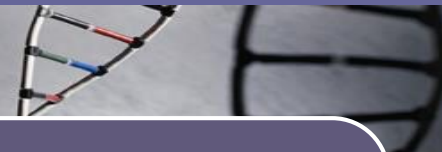
قدرت

سرعت  
اثر



نوع  
ماده

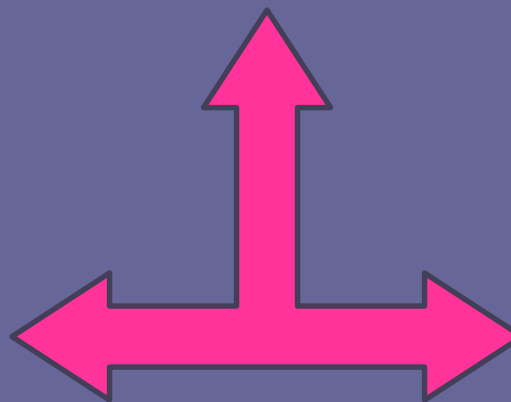
طرز  
مصرف



اعتیاد

رفتار  
اعتیادی

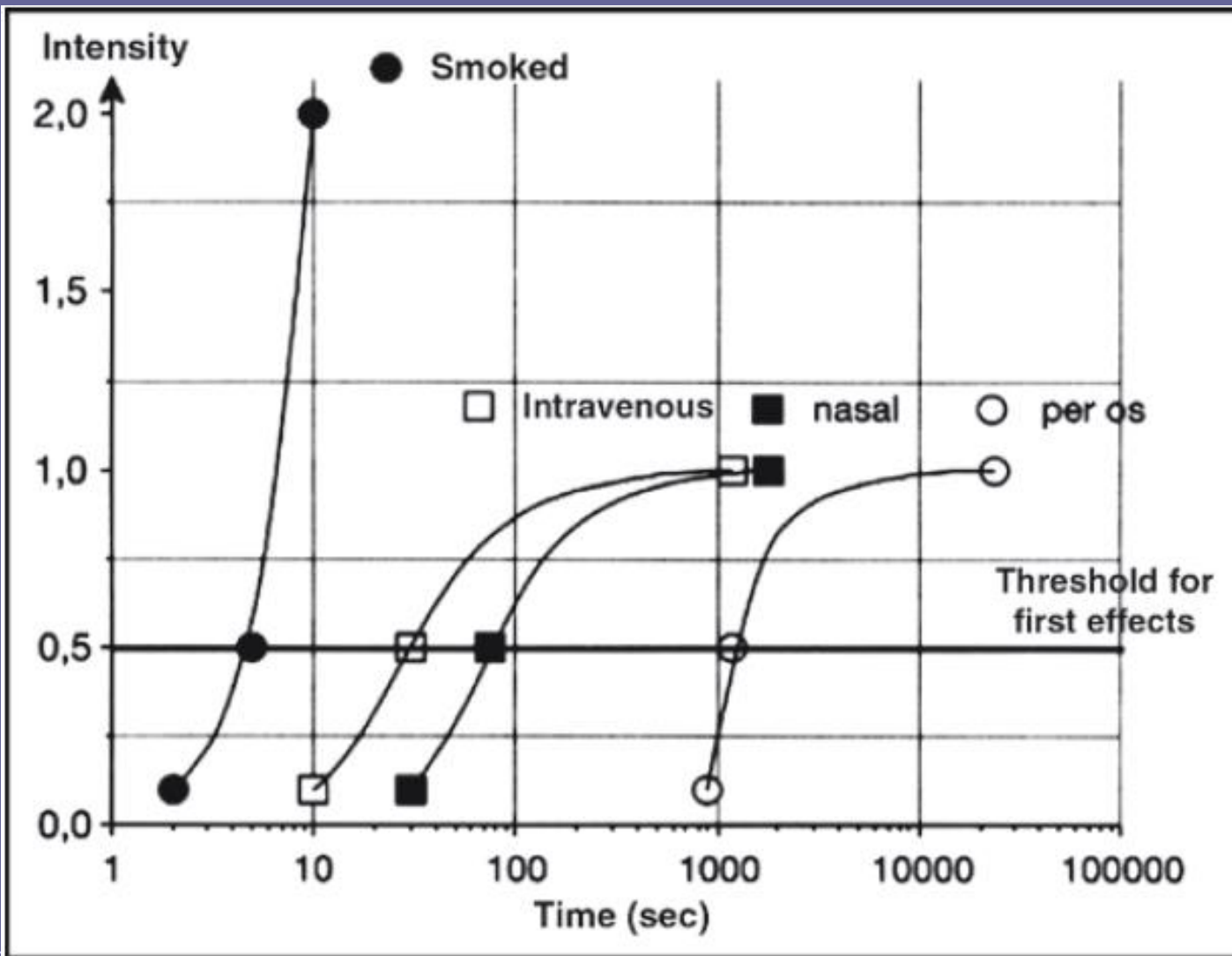
اثرات  
مواد



## آنچه آفتامین ها در ابتدا ایجاد می کنند!

- لذت شدید و ناگهانی
- کاهش وزن
- افزایش انرژی و رفع خستگی
- افزایش تمرکز و یادگیری
- کاهش نیاز به خواب
- رفع افسردگی
- بهبود روابط فردی و اعتماد به نفس
- برداشتن مهارهای اجتماعی
- ازدیاد میل جنسی

سرعت افزایش سطح مهم تر از میزان مصرف است





# اثرات مصرف متامفتامین

مصرف تدخینی یا تزریقی

مصرف خوراکی



Rush

Euphoria

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20



## مکانیسم اثر

### Amphetamines

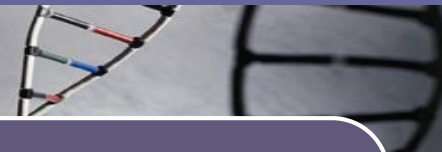
- نیمه عمر:
- 6 تا 12 ساعت

### Cocaine

- نیمه عمر:
- 50 تا 90 دقیقه



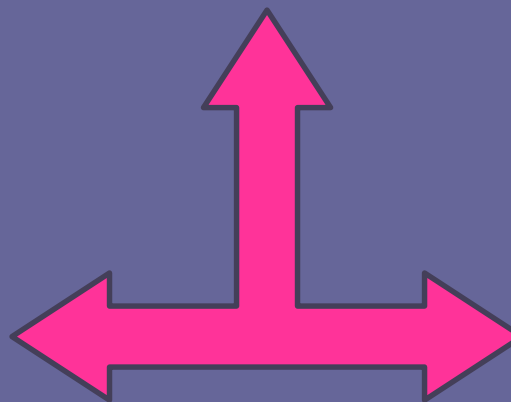
اثرات قطع مصرف



اعتیاد

رفتار  
اعتیادی

اثرات  
مواد



## اثرات قطع مصرف

### Similarity to Parkinsonism

- خستگی
- افسردگی و گریستن
- کندی حرکتی\*
- پر خوابی یا بی خوابی
- افزایش اشتها
- بی تفاوتی
- گوشه گیری
- وسوسه شدید



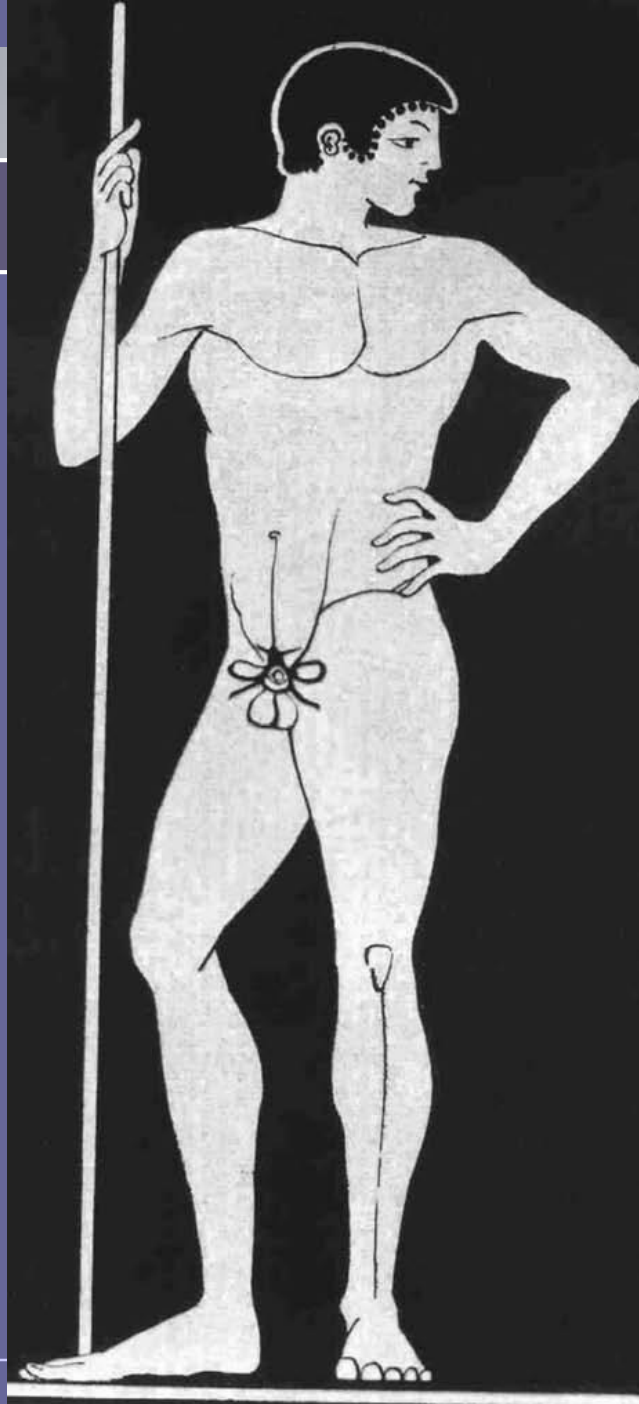
# معمای خستگی

پدیده ای فراموش شده در روانپزشکی

## خستگی مزمن بدون علت

- 20 تا 25 درصد جامعه از خستگی گذرا (2 هفته) رنج می برند
- 5 درصد از خستگی بیش از 6 ماه رنج می برند
- 0/5 درصد مبتلا به سندرم های خستگی مزمن هستند
- خستگی در زنان شایع تر است
- تاثیر بسیار زیادی در رضایتمندی از زندگی دارد

Fibromyalgia, CFS, atypical poliomyelitis, myalgic encephalomyelitis



## Infibulation



# Onanism by Simon Andre Tissot

L'ONANISMO  
OVVERO  
DISSERTAZIONI  
Sopra le Malattie cagionate dalle  
Polluzioni volontarie  
DEL SIGNOR TISSOT  
DOTTORE IN MEDICINA, SOCIO DELL'  
ACCADEMIA DI BASILEA EC. EC.  
TERZA EDIZIONE.

*Propriis extinctum vivere criminibus.*

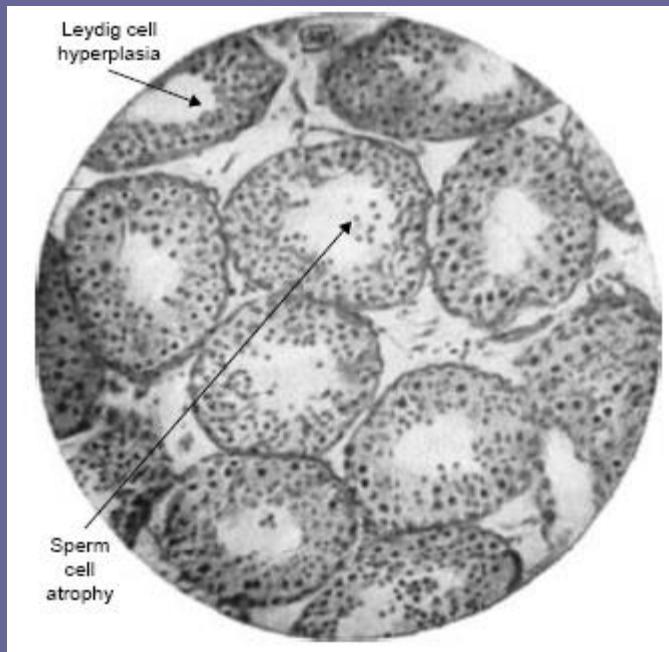


IN VENEZIA  
MDCCLXXXV.

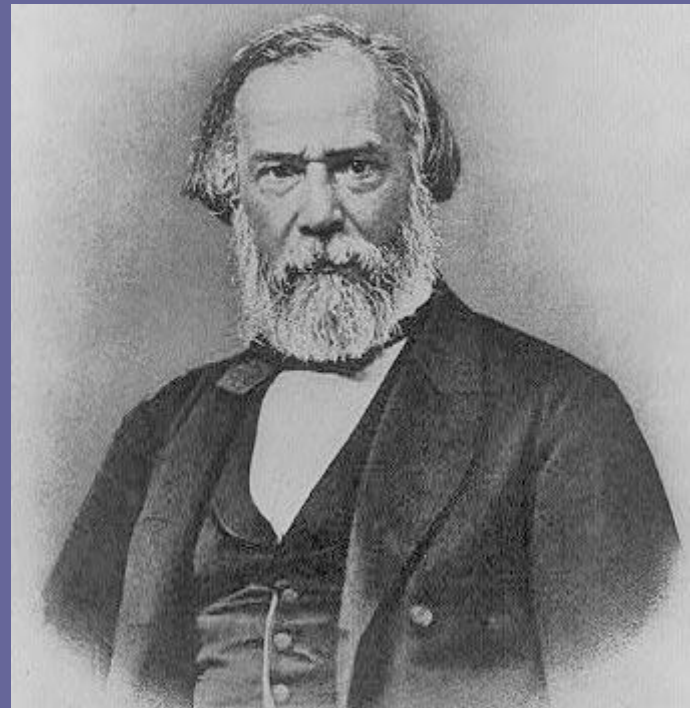
Nella Stamperia GRAZIOSI a S. Apollinare.

CON LICENZA DE' SUPERIORI, E PRIVILEGIO.

# Steinach و عمل جراحی بحث انگیز وی



# Charles Brown-Sequard و عصاره بيضه گاوها





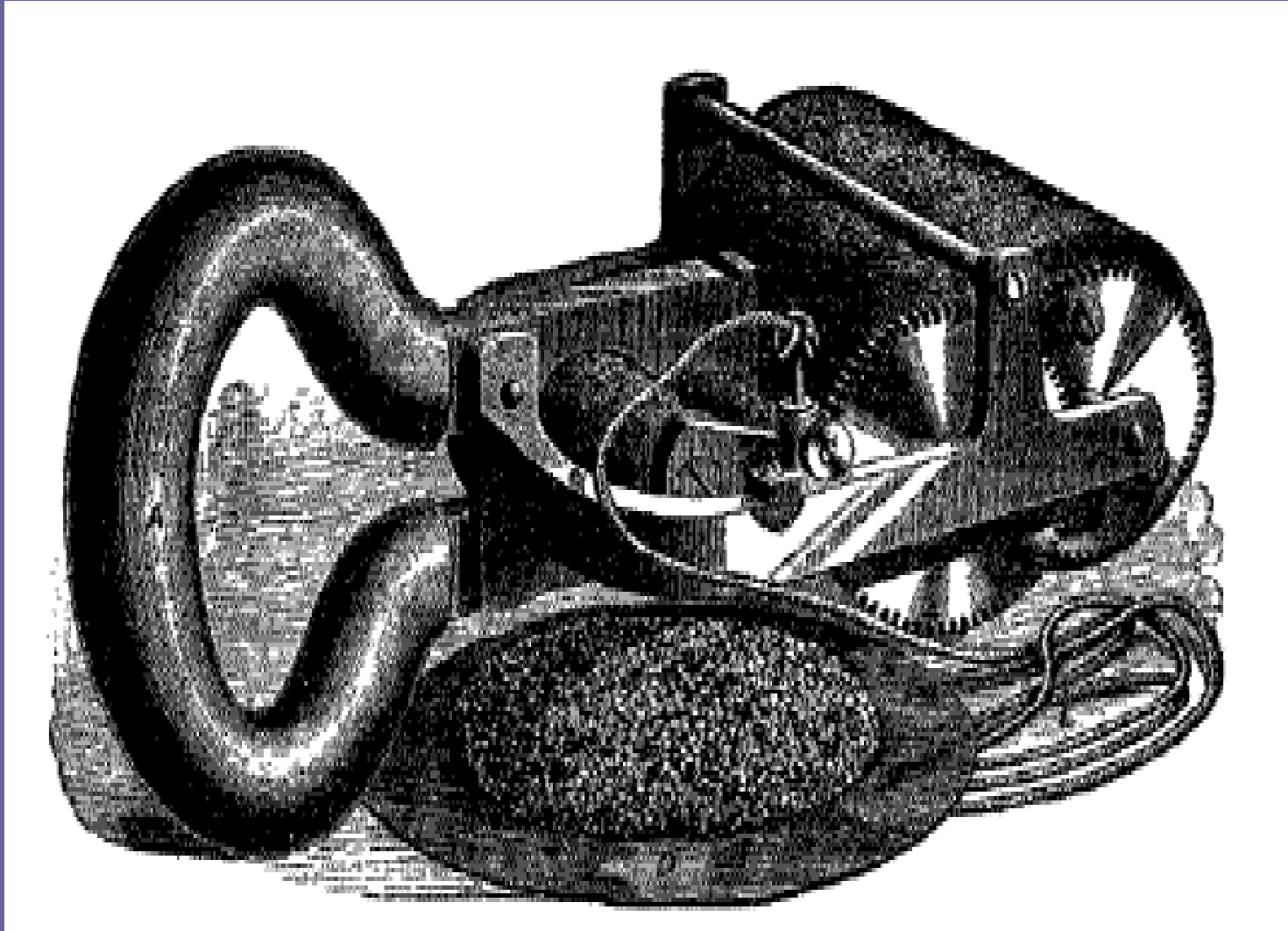
# Serge Voronov و پیوند بیضه میمون ها به انسان!!



# تائير عمل جراحی ورونف!!



## ویبراتورها



## ویبراتورها

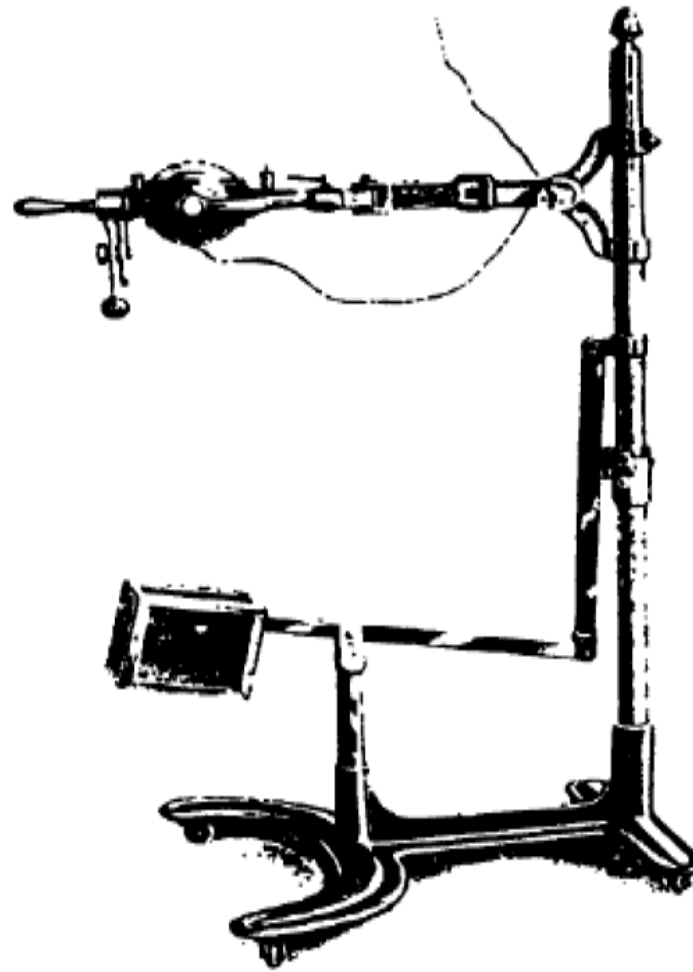


FIG. 4. The Chattanooga Vibrator, sold to physicians for about \$200 in 1900. From *The Chattanooga Vibrator* (Chattanooga, Tenn., Vibrator Instrument Company, [ca. 1904]), cover.





نکته مهم:

در تاریخ پزشکی مواد محرک با مسئله  
خستگی عجیب بوده است



عوارض مصرف

## عوارض روانپزشکی

- پارانوئیا و پسیکوز (توهم و هذیان)
- پرخاشگری
- گوشه گیری، افسردگی و بی تفاوتی
- خستگی و کاهش انرژی
- رفتارهای تکراری و اجباری از جمله تیک و **punding**
- مشکلات جنسی
- آسیب های **neurotoxic** در مغز بویژه در نرون های سروتونرژیک و دوپامینرژیک

## بدبینی



# پسیکوز



## افزایش تنوع طلبی و اعتیاد جنسی



## عوارض بدنی

- افزایش فشار خون
- تنگی عروق و سلب زودرس شرایین
- کاهش خون بافت ها
- سکتة زودرس مغزی و عروقی
- واسکولیت
- تاخیر در التیام زخم ها
- عفونت زخم ها
- خرابی دندان ها
- آسیب به بافت های مغز
- انفارکتوس گوارشی
- کاهش شدید وزن و تحلیل بافت ها
- کاهش ایمنی بدن

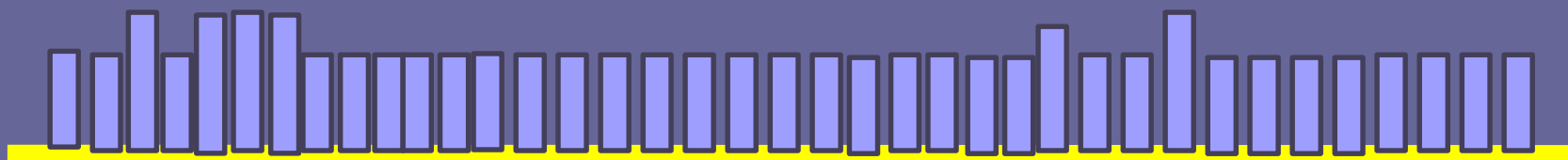
Cardiomyopathy

تشديد هرگونه حالت لذت بخش

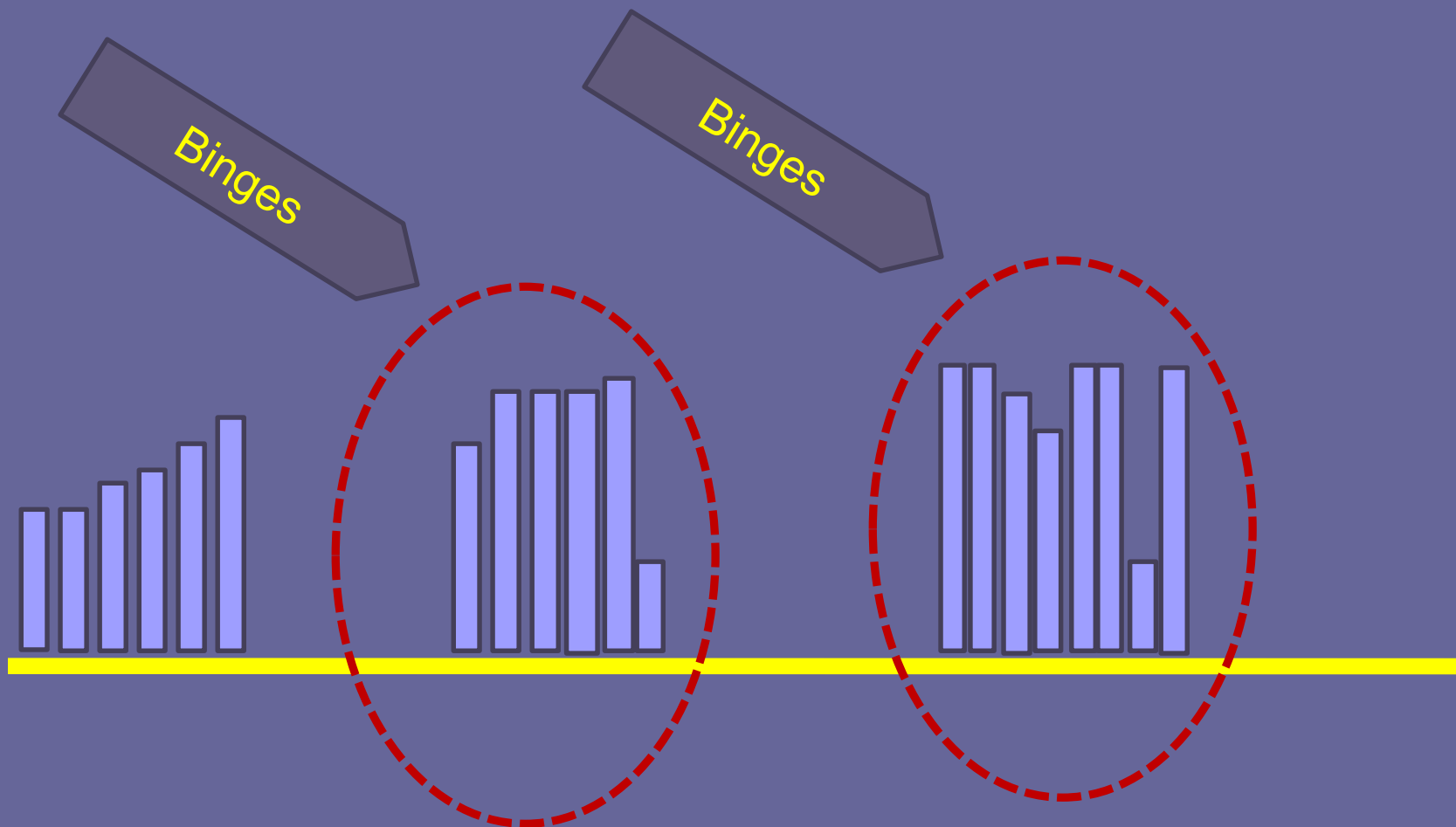
• مفهوم فاز



# الگوى مصرف مواد افیونى



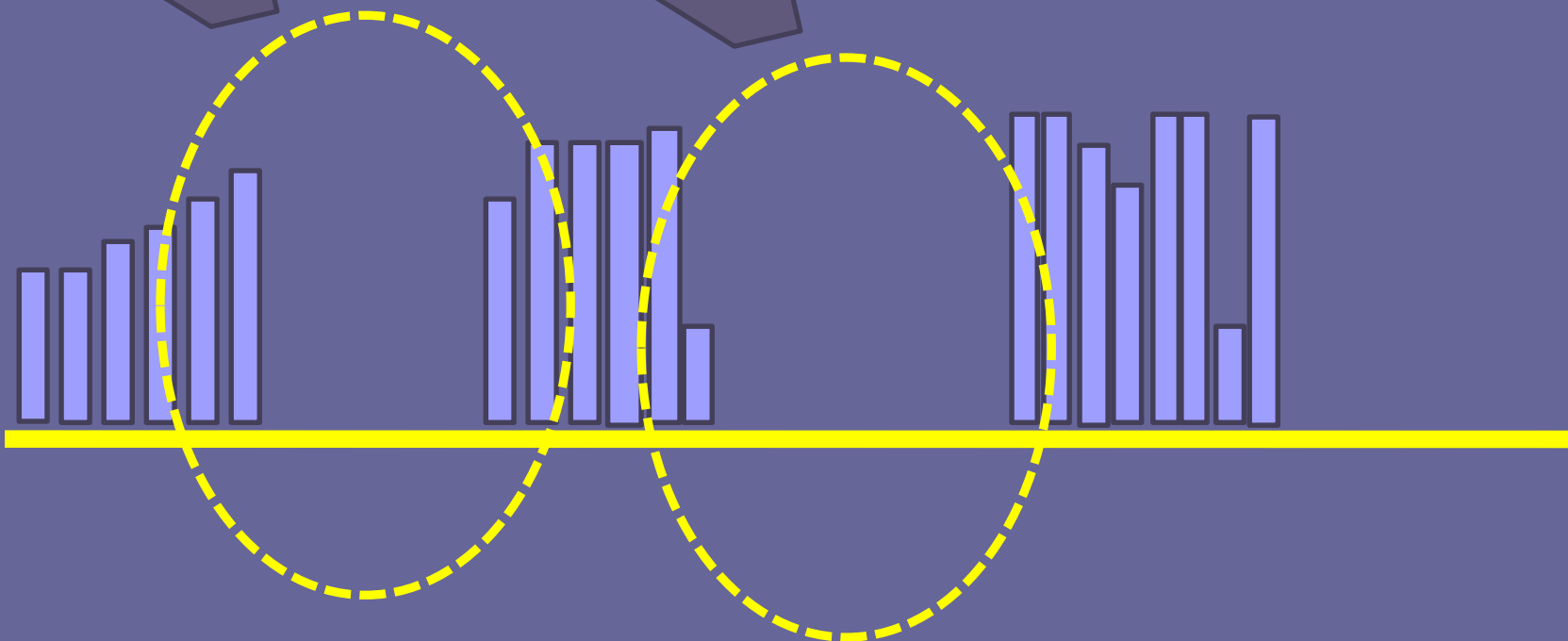
# الگوى مصرف مواد محرک



# الگوى مصرف مواد محرک

Crashes

Crashes



## سخنی در باب اکستازی

- MDMA:
  - 3,4-methylenedioxyamphetamine
- Highly serotonergic
- Oxytocin release
- Weaker dopaminergic effects

NE, DO, **SE**

اکستازی به توهم زها نزدیکتر است تا به محرک ها

Amphetamine

Ecstasy

Mescaline

Entactogen

Empathogen

## تقابل سیستم اکسی توسین و دوپامین

### Amphetamine (DA)

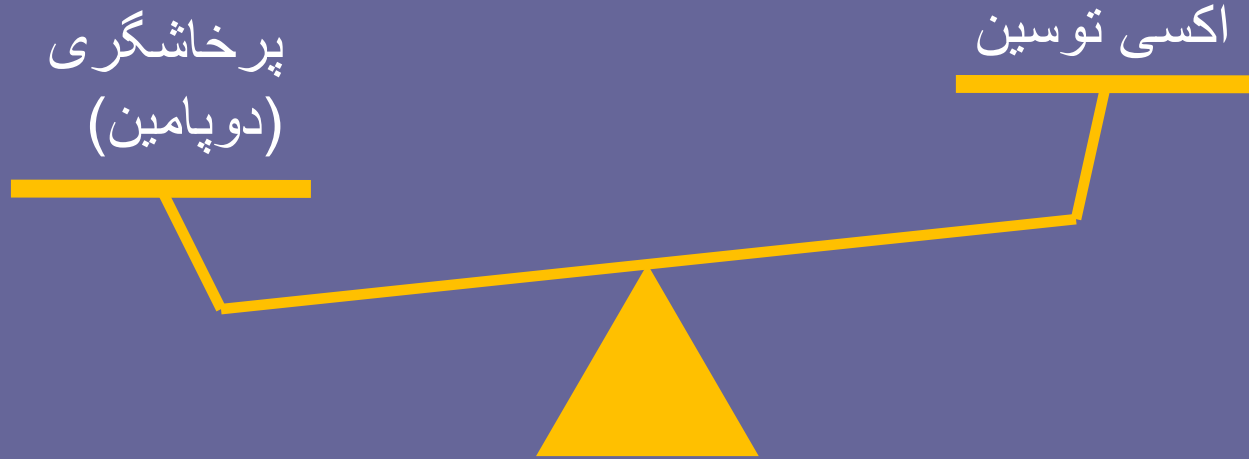
- پرخاشگری
- اعتیاد و اشتهای افراطی
- ضد اجتماعی
- اشتغال ذهنی با غیر جاندارها

### Oxytocin

- ضد پرخاشگری
- اتصال عاطفی
- ضد اعتیاد
- اشتغال ذهنی با انسان ها و موجودات جاندار

# تعادل سیستم اکسی توسینی و پرخاشگری

Appetitive  
behavior



اللَّهُمَّ صَلِّ عَلَى مُحَمَّدٍ وَآلِ مُحَمَّدٍ  
وَعَجَّلْ فِرَاقَهُمْ