

# Drugs of the South Pacific



Betel Nut  
& Kava



# Betel Nut



A drug of abuse . . .

- more than 200 million users
- from India, Indonesia to PNG, Solomon Islands, Vanuatu

In 1800's in Europe, Asia, Pacific, promoted as having medicinal uses

- in reality, major use is as a drug
- no medical use

# Betel Nut



There is betel nut use  
even among some Christians.

In a survey of some Christian high  
schools in the South Pacific:

- In PNG : **53%** of boys & **67%** of girls  
had tried betel nut
- In Solomon Islands : **74%** of boys &  
**75%** of girls had tried betel nut

*(Richardson and Wadah, April 2000)*

# What is Betel Nut?

A betel nut quid usually has three parts:

1. Areca (or betel) nut (*Areca catechu*)
2. Parts of the betel nut plant (*Piper betel*).

In PNG, the fruit is usually used

Leaf, vine or stalk can also be used

3. Slaked lime (*calcium hydroxide*)

**Combination is chewed,  
turning saliva blood red**

# What is Betel Nut?

## Active drugs:

- *Arecoline* (in betel nut).  
Lime changes this to *arecaidine* (same chemical family as nicotine)
- *Pilocarpine* - small amounts
- *Muscarine* - small amounts

Betel Nut is an addictive drug!



# Effects of Betel Nut Use

## On the User: Psychological Dependence

- Feel unhappy and incomplete, if they cannot get the betel-nut
- Often feel they cannot work properly without it
- Spend a lot of money and make great efforts to get the mixture
- Help may be needed to assist a person to give it up.

# Effects of Betel Nut Use

## On the User: Central Nervous System

- Similar to the effects of nicotine
- Nice, happy feelings
- More energy
- Users see this as a reduction in tiredness and irritability

# Effects of Betel Nut Use

## On the User: Physical Changes

- Sweating
- Increased saliva production
- Increased breathing rate
- Tears in eyes
- Decrease in appetite
- On an empty stomach, may cause diarrhoea



# Effects of Betel Nut Use

## On the User: Problems in the Mouth

- Burning sensation
- Blisters, ulcers, dryness
- Loss of taste

## SUBMUCOUS FIBROSIS

- Affects gums, mouth, back of throat
- Soft parts get harder, become stiff, swallowing becomes difficult
- Takes a long time, not reversible

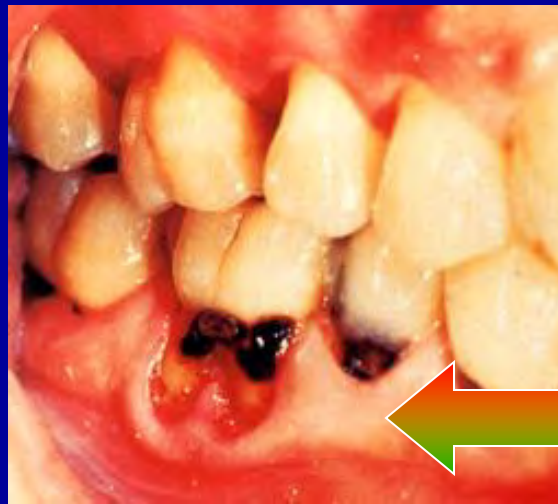
# Effects of Betel Nut Use

## On the User: Teeth Problems

- Stained red, brown or black, unattractive
- Greater risk of decay
- Dental abscesses
- Teeth fall out



TOP: Gingivitis - gums inflamed



LEFT: cavities and abscess



# Effects of Betel Nut Use

**On the User:** Increased Risk of Cancers

**MOUTH CANCER:**

- Pre-cancer white patches on mouth or tongue (*leukoplakia*)
- Often become very aggressive cancers (*squamous cell carcinoma*)



LEUKOPLAKIA

# Effects of Betel Nut Use

**On the User: Increased Risk of Cancers**

## MOUTH CANCER:

- These cancers can invade muscle and bone in the mouth and oesophagus



(Right) Cancer of the floor of the mouth.



# Effects of Betel Nut Use

**On the User: Increased Risk of Cancers**

## MOUTH CANCER:

- Highest rate in the world in PNG.
- Second highest rate in the world in the Solomon Islands.

(Right) Cancer of the floor of the mouth.



# Effects of Betel Nut Use

**On the User: Increased Risk of Cancers**

**MOUTH CANCER:**

- Results of Using Betel Nut



**Cancer of  
the tongue.**



**Cancer of  
the cheek.**



# Effects of Betel Nut Use

## On the User:

### UNBORN CHILDREN

- May cause genetic damage, problems for unborn babies

**POVERTY** - Money spent on betel nut

### COMBINING DRUGS

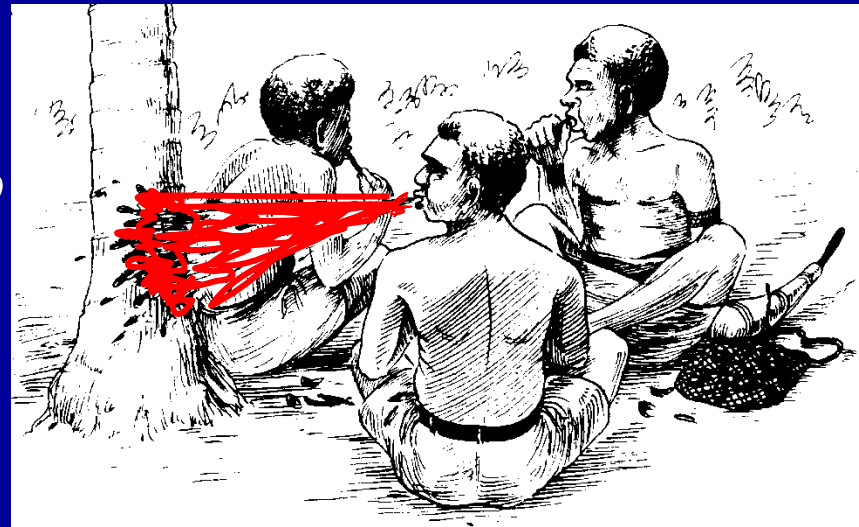
Betel Nut + Alcohol + Tobacco =

**MORE CANCERS** = EARLIER DEATH

# Effects of Betel Nut Use

## On the Community: Spread of Diseases

- Spitting (because of increased saliva)
- Users often share the same container or spatula.
- Tuberculosis and hepatitis can easily be spread from one user to another user, and to others, including children.



# Effects of Betel Nut Use

## On the Community: Pollution

- Betel nut spittle stains buildings and streets.
- Betel nut husks litter the streets and village grounds - dirty and untidy.

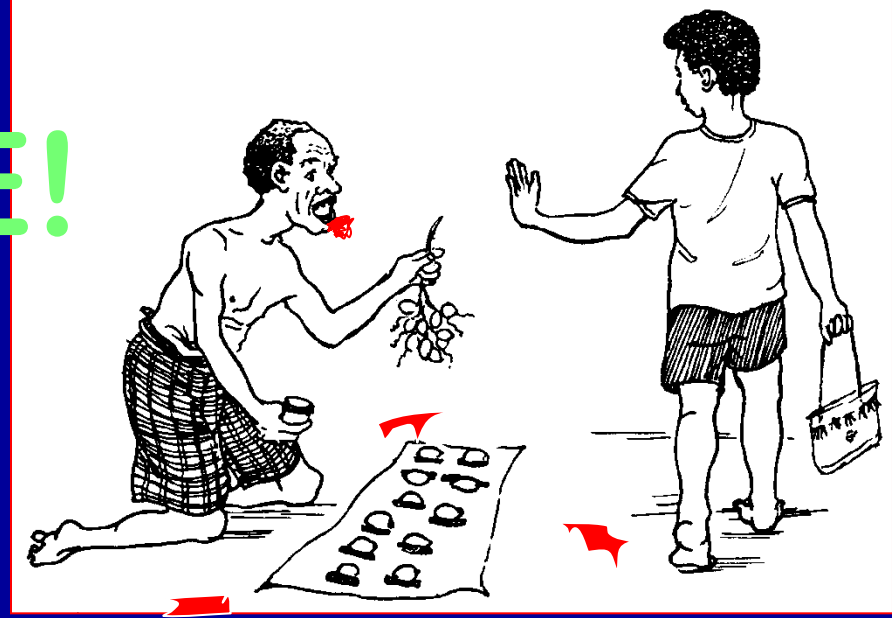
# Effects of Betel Nut Use

## On the Community: Economic Loss

- Affects tourist industry - tourists go somewhere else.
- High cost to user – could buy more long lasting things: e.g. education, transport.
- High cost of medical resources to treat disease.
- Retards national development.

# YOUR CHOICE!

Which will  
YOU CHOOSE ?



To use a life-destroying and health-destroying habit, with the risk of painful cancer ?

OR

Choose a cleaner healthier life and have a cleaner, healthier, and a wealthier family ?

**CHOOSE NOT TO USE BETEL NUT!**

# Kava

A ceremonial  
drink used  
mainly by  
Pacific Island  
people.  
Also available  
as a herbal  
supplement





# What is Kava?

Kava is a drug!

It is made from  
the ground roots  
of the plant -

*Piper*

*Methysticum* -



a member of the pepper family that  
also includes the black pepper.

# What is Kava?



The crushed, ground or powdered root is added to water and drunk like tea.

Kava is consumed as a drink or as a herbal supplement.

# How Kava Works?

- The chemical ingredients of kava include *kava lactones*.
- Absorbed into the blood through the stomach wall.
- Reaches the brain relatively quickly.
- Kava is a central nervous system depressant.
- No alcohol in kava - but has similar symptoms – staggering, inability to talk properly.

# How Kava Works?

Strength of kava lactones can vary widely

- Variations in growing conditions (soil type, amount of sunlight, water available)
- Different varieties of plant
- How the drink is prepared
- Amount of powdered kava used

# How Kava Works?

- It is not a drug of chemical dependence.
- Withdrawal risk seems low but medical supervision is recommended if a person suddenly stops taking kava.

# Effects of Short Term Use

It is a depressant –  
starts to shut down the nervous system

- Sleepiness
- Relaxing of muscles
- Feelings of happiness & well-being
- Numbness of mouth & throat
- Possible loss of appetite

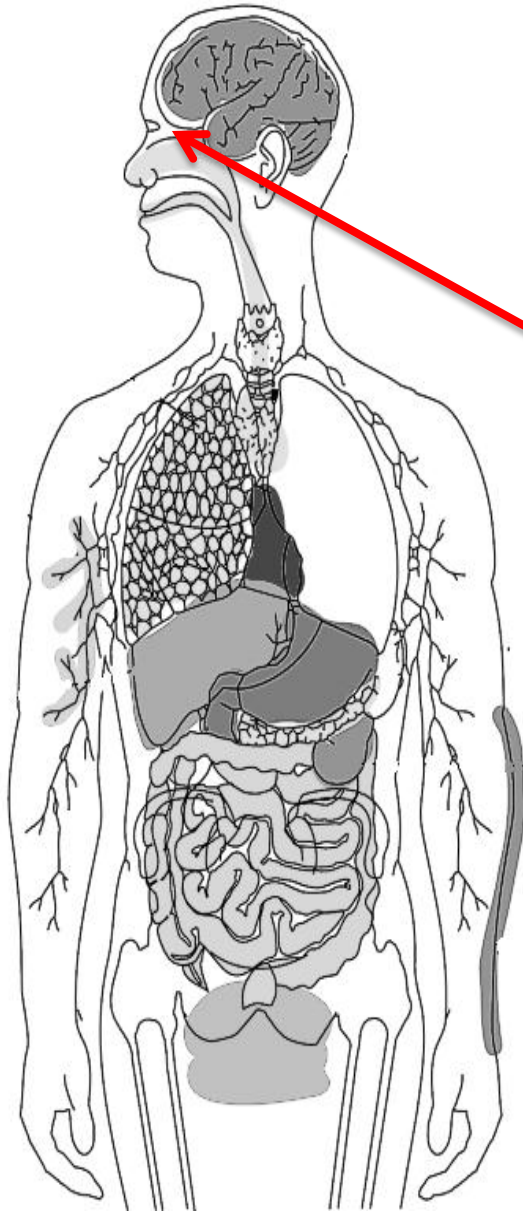


# Social Effects of Kava Use

- Amount of time and money spent
- Neglect of family and community duties
- Impacts on family health and well-being

# Effects of Long Term Use

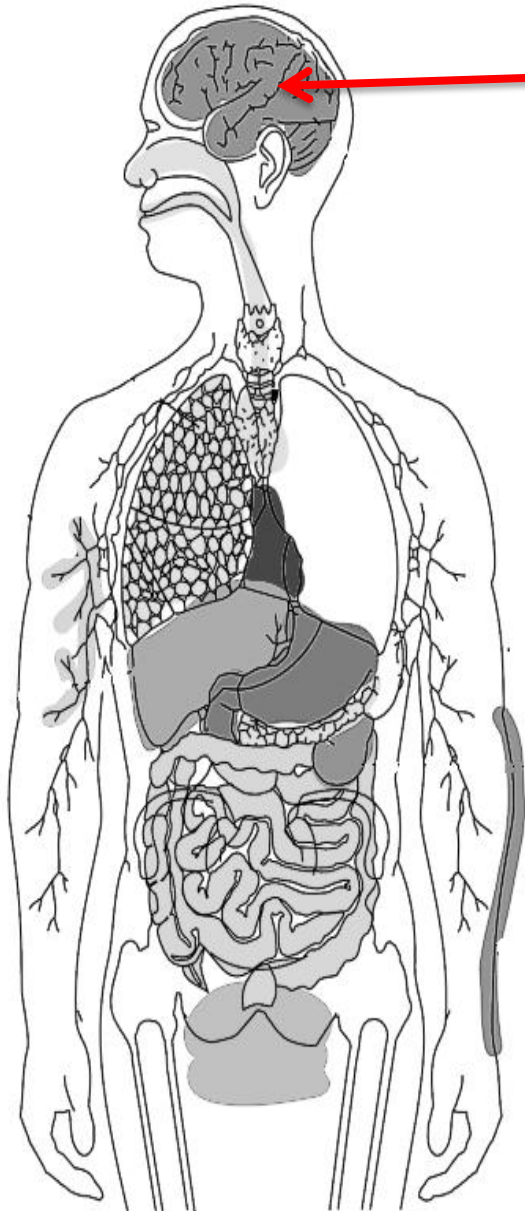
A range of health problems:



## *Eyes:*

- Bloodshot & red
- Dilated (large) pupils
- Sensitive to light (*photophobia*)

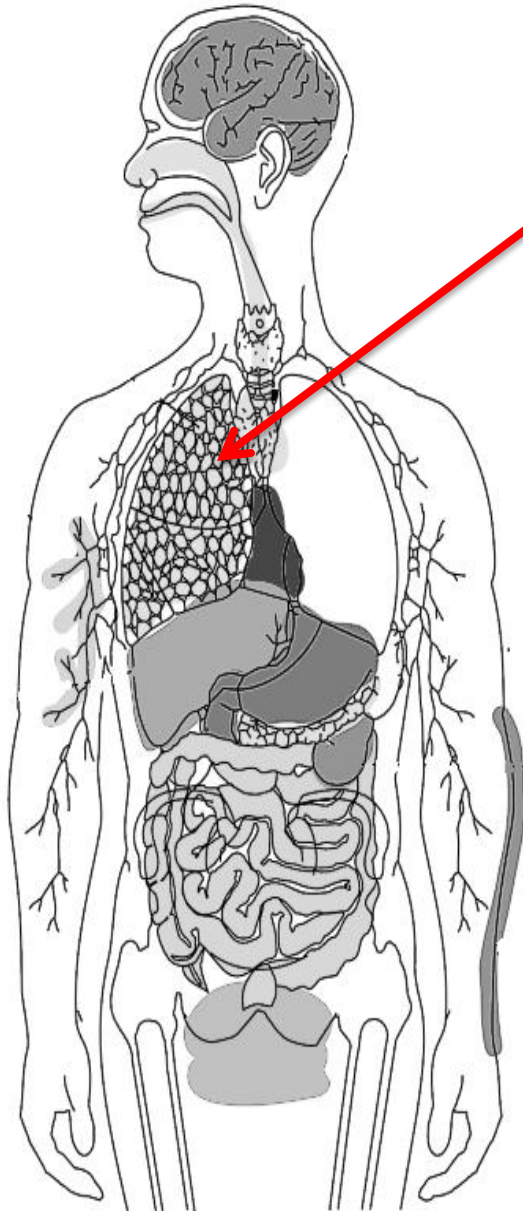
# Effects of Long Term Use



## *Central Nervous System:*

- Loss of muscle control (*ataxia*).
- Balance upset
- Sleepiness or stupor
- Nervous trembling
- Schizophrenia & depression worse

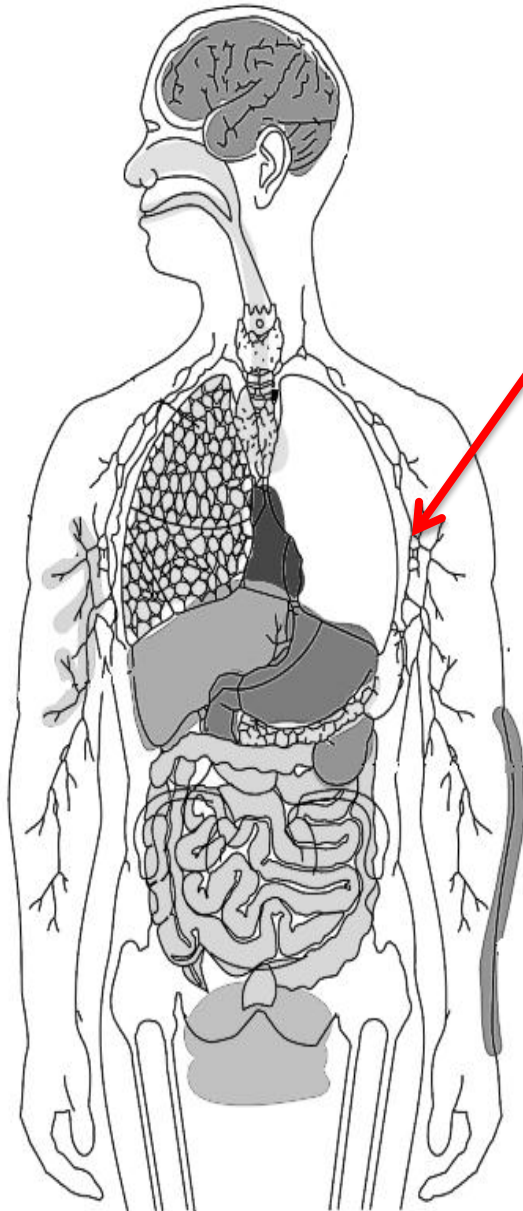
# Effects of Long Term Use



## *Respiratory System:*

- Breathing difficulties - shortness of breath
- Chest pain
- Sudden death can occur during heavy exercise

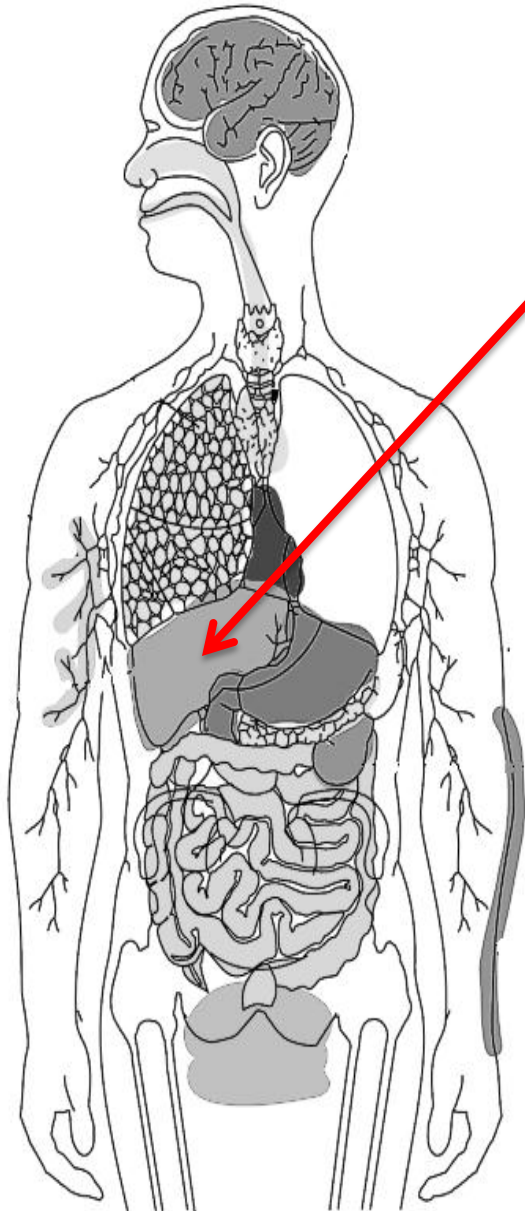
# Effects of Long Term Use



## *Circulatory System:*

- Changes to the blood cells, including white and red blood cells and platelets

# Effects of Long Term Use

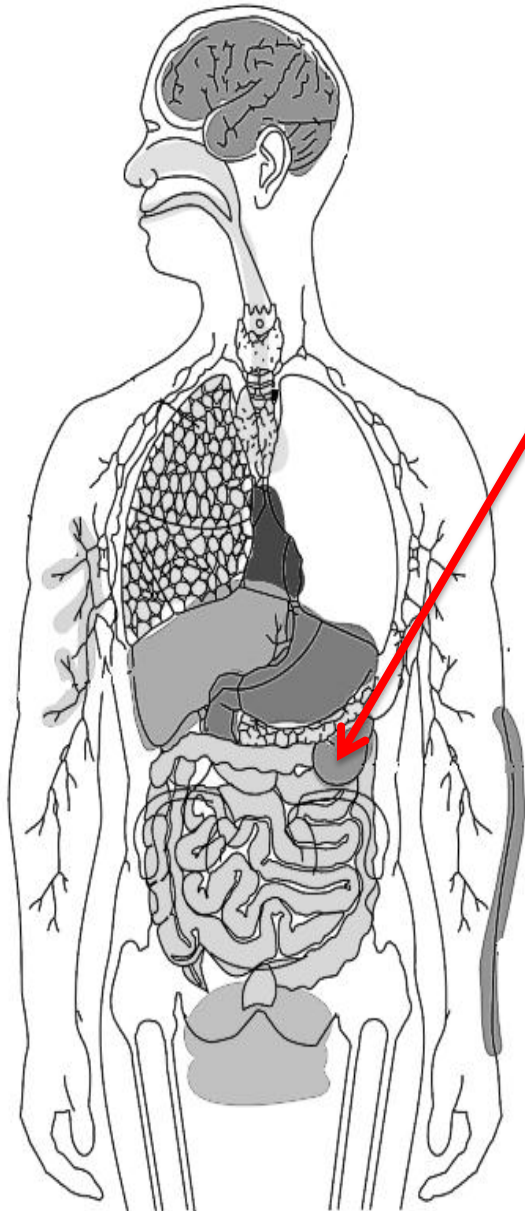


## *Liver:*

- Irreversible liver damage
- Changes to the body chemistry
- Liver failure and death



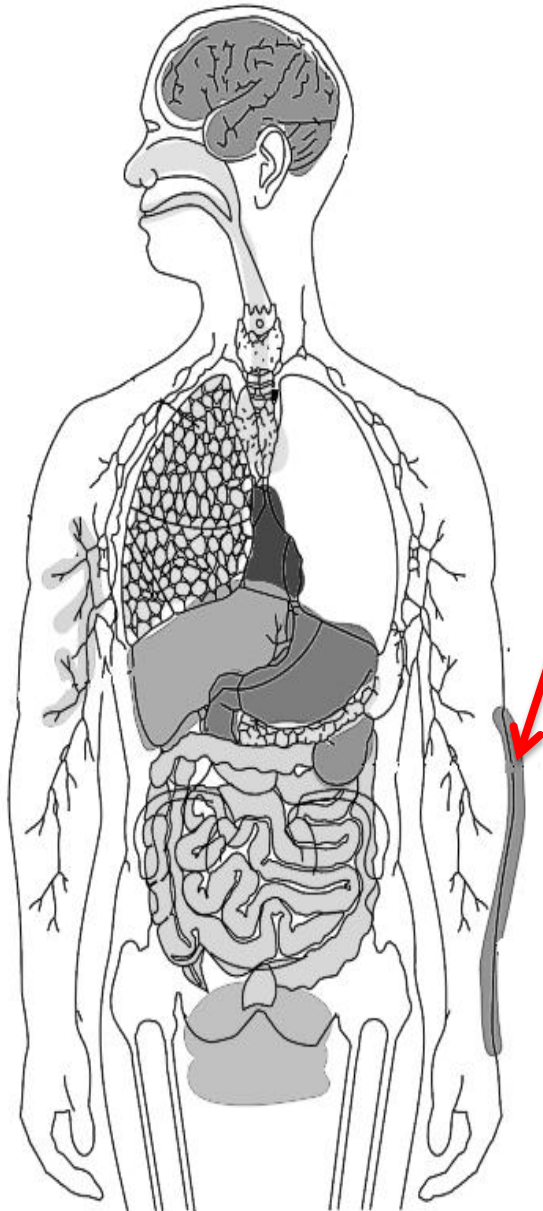
# Effects of Long Term Use



## *Kidneys:*

- Irreversible kidney damage – renal dysfunction
- Increased urine output

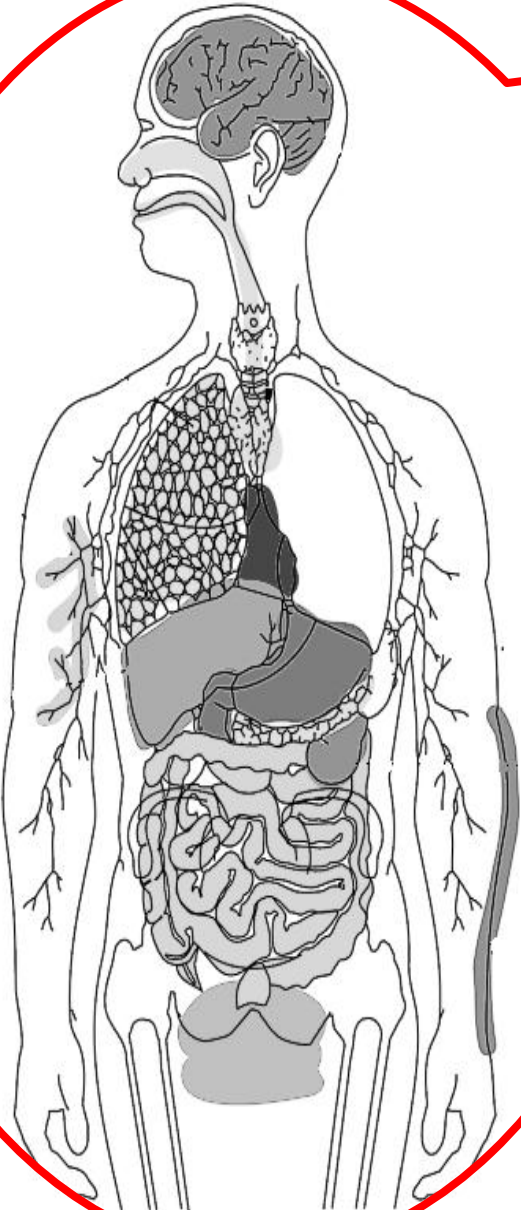
# Effects of Long Term Use



## *Skin:*

- Dry, scaly (crocodile) skin
- Yellow or white discolouring
- Ulceration

# Effects of Long Term Use



## *General Body Effects:*

- Increased chance of infection
- General ill health
- Nausea
- Malnutrition & loss of body fat
- Mood swings
- Apathy – loss of drive & motivation

# Medicinal Use of Kava

- Used as an anti-anxiety or sedative medicine.
- 2003 – Banned in European Countries  
- possible toxic effects on the liver.
- In Australia - temporarily withdrawn,  
death of one person from liver failure.
- 2003 - Therapeutic Goods  
Administration review - restricted  
doses in supplements and tea bags.

# Medicinal Use of Kava

- Advised to seek medical help if symptoms occur, such as
  - \* Appetite loss
  - \* Extreme tiredness
  - \* Raised body temperature
  - \* Nausea and vomiting
  - \* Abdominal pains
  - \* Brown coloured urine
  - \* Unusual bruises or bleeding
  - \* Yellowing of the eyes or skin (jaundice).

# DANGER!!

- Do not combine with alcohol or other psychoactive drugs.
- Avoid kava if you are taking any prescription drugs.
- Some people are more at risk:
  - Pregnant and breastfeeding women
  - People driving or operating machinery
  - Children
  - People with pre-existing heart, lung or liver problems.

These drugs are  
not worth the  
risks!

Say "No Thanks!"  
Choose Health!