



**- FURTHER -**

pure and applied cannabis education

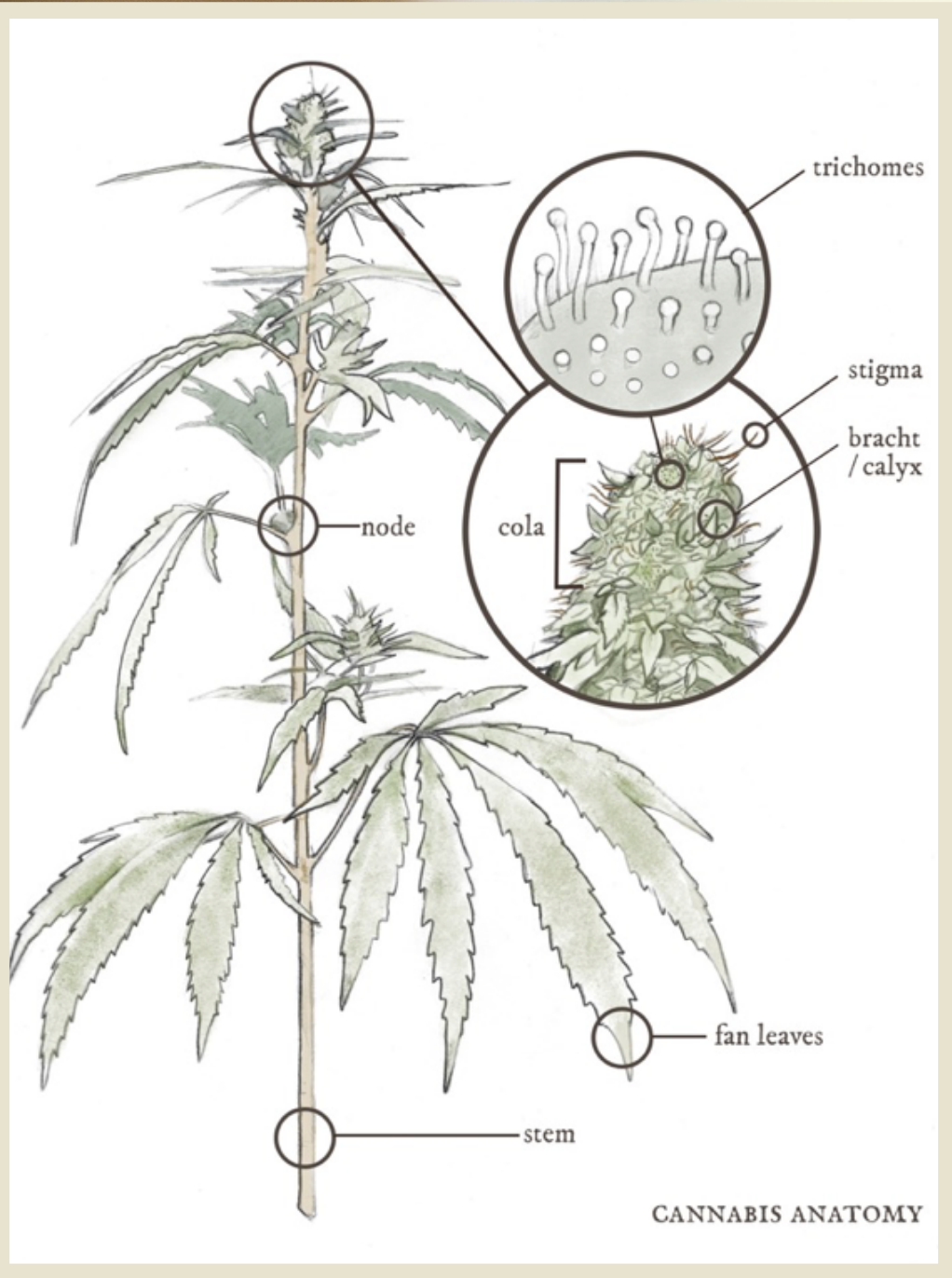
DEDICATED TO  
ADVANCING ALL  
FORMS OF  
CANNABIS-RELATED  
KNOWLEDGE AND  
THE CULTURES THAT  
GROW FROM THEM.

[furthercannabis.com](https://furthercannabis.com)

**CANNABIS**  
**education**

(c)2022 rvtd llc





TRICHOMES CONTAIN  
CANNABINOIDS AND TERPENES

THE CALYX IS THE FIRST PART OF  
THE FLOWER

BUDS DEVELOP IN THE COLA

NODES SPLIT TO CREATE BRANCHES

FAN LEAVES TAKE IN SUNLIGHT

STEMS SUPPORT THE WEIGHT OF  
THE PLANT

“Anatomy is to physiology as geography is to history;  
it describes the theatre of events.”- Jean Fernel



# TRICHOMES

TRICHOMES ARE TINY, GLANDULAR APPENDAGES ON THE SURFACE OF CANNABIS FLOWERS THAT PRODUCE MOST OF THE PLANT'S CANNABINOIDS, TERPENES AND FLAVONOIDS.

EACH GLAND HEAD SERVES AS THE EPICENTER FOR THE SYNTHESIS OF CANNABINOIDS AND TERPENES.







# FLAVONOIDS

FLAVONOIDS CONTRIBUTE TO THE FLAVOR, AROMA, AND PIGMENT DIFFERENCES, PROVIDING EACH CANNABIS STRAIN ITS UNIQUE TASTE, SMELL, AND COLOR.

# TERPENES

TERPENES INFORM THE AROMA AND FLAVOR OF A CANNABIS STRAIN, WORKING WITH CANNABINOIDS AND OTHER PLANT COMPOUNDS TO PRODUCE PSYCHOACTIVE EFFECTS.





SAY HELLO TO YOUR  
NEW BEST FRIEND

# CANNABINOIDS

Cannabinoids produce their effects by interacting with specific receptors, located within different parts of the central nervous system.

Cannabinoids regulate how cells communicate - how they send, receive, or process messages.

At least 113 different cannabinoids have been isolated from the cannabis plant.

## **THC A:** **TETRAHYDROCANNABINOLIC ACID**

- FOUND IN RAW AND LIVE CANNABIS
- NON-PSYCHOACTIVE
- DECARBOXYLATES INTO THC
- ANTI-INFLAMMATORY, ANTI-NAUSEA

## **THC: TETRAHYDROCANNABINOL**

- MAIN PSYCHOACTIVE COMPOUND IN CANNABIS
- REQUIRES DECARBOXYLATION TO ACTIVATE
- PAIN RELIEF, NAUSEA, APPETITE, SLEEP, ANXIETY, ETC.

## **CBD: CANNABIDIOL**

- NON-PSYCHOACTIVE
- WELL TOLERATED
- DERIVED FROM HEMP PLANT
- LEGAL FOR CONSUMPTION
- PAIN RELIEF, NAUSEA, PREVENTING SEIZURES, EASING MIGRAINE

## **CBN: CANNABINOL**

- CREATED WHEN THC BREAKS DOWN DUE TO PLANT AGE
- CAN PRODUCE MILD PSYCHOACTIVE REACTIONS IN LARGER DOSES
- SLEEP AID, PAIN RELIEF

## **CBG: CANNABIGEROL**

- NON-PSYCHOACTIVE
- INFLAMMATION, PAIN, NAUSEA.
- REDUCES INTRAOCULAR EYE PRESSURE



# CANNABIS SPECIES

S A T I V A



- 'head high'
- Tall plant, thin leaves
- Change in light cycle triggers flowering
- Often has lower doses of CBD and higher doses of THC

R U D E R A L I S



- 'body high'
- Short plant, broad leaves
- Change in light cycle triggers flowering
- Often has higher levels of CBD and less THC
- 'weed grown wild'
- Flowers based on age, not light cycle
- Very low levels of THC
- High levels of CBD

I N D I C A



# MOST CANNABIS STRAINS ARE HYBRID.

"INDICA" AND "SATIVA" ARE BOTANY TERMS USED TO DESCRIBE THE PHYSICAL, OBSERVABLE TRAITS OF A CANNABIS PLANT — NOT THE EFFECTS IT PRODUCES.

AS CANNABIS CULTIVATION MATURED, ALL OF THESE DIFFERENT TYPES OF STRAINS WERE HYBRIDIZED FOR THEIR DESIRABLE GENETIC TRAITS — SUCH AS LARGE YIELDS, HIGH THC PERCENTAGES AND RESILIENCE DURING GROWING — IN AN ATTEMPT TO MAKE STRAINS WITH SPECIFIC CHARACTERISTICS BECOME SUPER STRAINS.

"THE BEAUTY OF THE UNIVERSE CONSISTS NOT ONLY OF UNITY IN VARIETY BUT ALSO OF VARIETY IN UNITY." — UMBERTO ECO

ENERGIZED  
SOCIAL  
EUPHORIA  
CREATIVE

FOCUSED  
UPLIFTING  
HAPPY  
CONTENT

BALANCED  
CONTENT  
SATISFIED  
RELAXED

RELIEF  
PEACEFUL  
CALM  
RELAXED

SEDATE  
TRANQUIL  
SLEEPY  
RESTFUL

SATIVA-DOMINANT

««««« HYBRID »»»»»

INDICA-DOMINANT

THE "HYBRID" LABEL IS USED TO SIGNIFY A STRAIN WITH EFFECTS THAT ARE THE MIDDLE OF "INDICA" AND "SATIVA" — WHEN YOU WANT SOMETHING RELAXING BUT WON'T MAKE YOU SLEEPY OR HAZY; OR SOMETHING MILDLY STIMULATING BUT WON'T GIVE YOU AN OVERPOWERING HEAD HIGH. BUT WHAT A HYBRID ACTUALLY IS MEANT TO SIGNIFY IS A STRAIN BRED FROM TWO OR MORE OTHER STRAIN VARIETIES TO INHERIT THE MOST FAVORABLE CHARACTERISTICS.

THOUGH THESE LABELS CONTINUE TO EXIST ON CANNABIS PACKING, IN STRAIN DATABASES, AND AS CATEGORIES THAT DIVIDE STORE DISPLAYS INTO PERCEIVED EFFECTS, THE TRUTH OF THE MATTER IS THAT EVERY SINGLE THING WE'RE SMOKING TODAY IS A HYBRID.

- FROM 'WHY EVERY STRAIN IS A HYBRID, ACCORDING TO A LEGACY GROWER', WEEDMAPS



# SATIVA-DOMINANT STRAINS



**GREEN CRACK**

SKUNK #1 X UNKNOWN INDICA.



**BLUE DREAM**

BLUEBERRY X HAZE.



**SUPER SILVER HAZE**

SKUNK, X NORTHERN LIGHTS X HAZE



**SOUR DIESEL**

CHEMDAWG X SUPER SKUNK

# LANDRACE SATIVA STRAINS

*Landrace strains are indigenous cannabis plants that provide the original genetic foundations of modern cannabis hybrids. All modern cannabis strains evolved from the many hundreds of original landrace strains.*



**ACAPULCO GOLD**

MEXICO



**DURBAN POISON**

SOUTH AFRICA



**LAMB'S BREAD**

JAMAICA



**PANAMA RED**

SOUTH AMERICA



# INDICA-DOMINANT STRAINS



**GIRL SCOUT COOKIES**  
OG KUSH X DURBAN POISON



**GORILLA GLUE**  
SOUR DUBB X CHEM SIS



**BIG BUDDHA CHEESE**  
CHEESE X SKUNK 1 X AFGHANI



**BLUEBERRY**  
AFGHANI X FRUITY JUICE

# LANDRACE INDICA STRAINS

*Landrace indica strains are thought to have evolved in the tough, rugged mountain ranges of Afghanistan, India, Nepal and Pakistan.*



**AFGHANI**  
AFGHANISTAN



**HINDU KUSH**  
CENTRAL, SOUTH ASIA



**MAZAR-I-SHARIF**  
NORTHERN AFGHANISTAN



**TASHKURGAN**  
NORTHERN AFGHANISTAN



# CONSUMPTION METHODS



- BUDS, PRE-ROLLS, BLUNTS
  - THC ENTERS BODY THRU LUNGS
  - EFFECTS CAN LAST UP TO 4-6 HOURS
- 



- "START LOW, GO SLOW"
  - THC ENTERS BODY THRU LIVER
  - 5MG PER SERVING/100MG PER PACKAGE
  - EFFECTS CAN LAST UP TO 8-12 HOURS
- 



- VAPE CARTS, CONCENTRATES
  - THC ENTERS BODY THRU LUNGS
  - CONTAINS NO HEAVY METALS OR VITAMIN E ACETATE
  - EFFECTS CAN LAST UP TO 3 HOURS
- 



- SUBLINGUAL, DIGESTED, TOPICAL
  - THC IS NON PSYCHOACTIVE WHEN APPLIED TOPICALLY
  - EFFECTS CAN LAST UP TO 2=4 HOURS
- 



- LOTIONS, PATCHES, OILS
  - THC IS NON PSYCHOACTIVE WHEN APPLIED TOPICALLY
  - EFFECTS CAN LAST UP TO 3 HOURS
-



# FLOWER & OIL

WHEN CANNABIS IS SMOKED OR VAPORIZED, IT TRAVELS DOWN THE WINDPIPE AND INTO THE LUNGS. ONCE IN THE LUNGS, THE THC PASSES INTO THE BLOODSTREAM. THE HIGH CAN LAST BETWEEN 4 TO 6 HOURS.

## FLOWER



THE 'HOME COOKING' OF CANNABIS PRODUCTS, SMOKING DRIED AND CURED FLOWER IS THE ORIGINAL AND MOST POPULAR FORM OF CONSUMPTION.

## EXTRACTS



EXTRACTING CANNABIS OIL FROM THE FLOWER USING SOLVENT-BASED AND CO2 PRODUCTION PROCESSES. MAY CONTAIN ADDED TERPENES & CANNABINOIDS.

## CONCENTRATES



CONCENTRATES ARE PRODUCED WITHOUT THE AID OF CHEMICAL SOLVENTS AND CONTAIN EXTRA-HIGH AMOUNTS OF CANNABINOIDS, TERPENES AND OTHER CANNABIS COMPOUNDS.



# EDIBLES

THC INFUSED EDIBLES ARE ABSORBED IN THE SMALL INTESTINE AND ENTER THE BLOOD SYSTEM. EFFECTS MAY TAKE LONGER TO BE FELT AND CAN LAST UP TO 8-12 HOURS.

## EDIBLES



KEEP EDIBLES IN A SAFE, DARK PLACE, STORED OUT OF THE SIGHT AND REACH OF KIDS AND PETS.

## TABLETS & CAPSULES



INFUSED TABLETS (SWALLOWED, NOT CHEWED) CAN BE CARRIED DISCREETLY AND PROVIDE A SPECIFIC, CONSISTENT DOSE WITHOUT VAPING, SMOKING, OR CONSUMING EXCESS CALORIES OR SUGAR.

## BEVERAGES



THROUGH A PROCESS CALLED NANO-EMULSIFICATION, CANNABIS OIL IS BROKEN DOWN INTO MICROSCOPIC PARTICLES AND THEN MIXED WITH AN EMULSIFIER, A SUBSTANCE THAT HELPS OIL DISSOLVE IN WATER. MIXING INFUSED BEVERAGES WITH ALCOHOL IS DISCOURAGED.

START LOW & GO SLOW: NEW OR RETURNING CONSUMERS OF CANNABIS SHOULD BEGIN WITH HALF OF A 5MG SINGLE-SERVING EDIBLE AND WAIT 30-60 MINUTES TO DETERMINE EFFICACY BEFORE DECIDING WHETHER TO CONSUME MORE THC DURING THE SESSION. THE MAXIMUM THC PER SERVING STRENGTH OF EDIBLES VARIES BY STATE AND IS A REGULATORY DECISION AND NOT RELATED TO SAFETY OR EFFICACY.



# TINCTURES

THC FROM CANNABIS OIL CONSUMED SUBLINGUALLY (UNDER THE TONGUE) IS ABSORBED BY MUCUS MEMBRANES. ABSORPTION HAPPENS DIRECTLY VIA THE ORAL CAVITY. EFFECTS FELT CAN LAST 2-4 HOURS.

## UNDER THE TONGUE



PLACED UNDER THE TONGUE, THC ENTERS THE BLOODSTREAM THROUGH THE MUCUS MEMBRANES. EFFECTS ARE FELT IN 15-45 MINUTES, PEAKING AROUND 90 MINUTES.

## DIGESTED



WHEN DIGESTED, TINCTURES SEND THC THROUGH THE LIVER. EXPECT A SLOWER ONSET THAT MORE CLOSELY RESEMBLES TRADITIONAL EDIBLES.

## TOPICALLY



ADD TINCTURE TO BODY LOTION AND CREATE AN INFUSED TOPICAL. THE PSYCHOACTIVE EFFECTS OF THC DO NOT PENETRATE THE SKIN.

ONE SERVING SIZE OF TINCTURE IS GENERALLY CONSIDERED TO BE .25ML. TO DETERMINE THC PER .25ML, DIVIDE THE TOTAL AMOUNT OF THC NOTED ON THE TESTING LABEL BY THE NUMBER OF TOTAL ML IN THE BOTTLE AND THEN DIVIDE AGAIN BY 4. 5,000MG OF TINCTURE EQUATES TO THE TOTAL DAILY PURCHASE LIMIT.



# TOPICALS

CANNABIS-INFUSED LOTIONS, BALMS, AND OILS ARE ABSORBED THROUGH THE SKIN FOR LOCALIZED RELIEF OF PAIN, SORENESS, AND INFLAMMATION. EFFECTS CAN BE FELT WITHIN 15 MINUTES, LASTING UP TO 3 HOURS.

## BALMS



WITH MOST TOPICALS, CANNABINOIDS CAN'T BREACH THE BLOODSTREAM; THEY ONLY PENETRATE FOR LOCALIZED RELIEF.

## PATCHES



TRANSDERMAL PATCHES DELIVER CANNABINOIDS TO THE BLOODSTREAM AND COULD HAVE INTOXICATING EFFECTS WITH A HIGH ENOUGH THC CONTENT.

## OILS



INFUSED MASSAGE OIL CAN HELP TO REDUCE INFLAMMATION AND SOOTHES MUSCLES.

BECAUSE THEY'RE NON-INTOXICATING, TOPICALS ARE OFTEN CHOSEN BY PATIENTS WHO WANT THE THERAPEUTIC BENEFITS OF MARIJUANA WITHOUT THE CEREBRAL EUPHORIA ASSOCIATED WITH OTHER DELIVERY METHODS. THE STATE PLACES NO LIMIT ON THE AMOUNT OF TOPICALS THAT MAY BE PURCHASED.



# TOLERANCE, DEPENDENCE & WITHDRAWAL

## TOLERANCE

TOLERANCE REFERS TO THE BODY GETTING USED TO TAKING A SUBSTANCE AND REQUIRING HIGHER DOSES.

WATCH FOR AGGRESSION, ANXIETY, INCREASED USE, DEPRESSED MOOD, IRRITABILITY, TROUBLE SLEEPING

## DEPENDENCE

DEPENDENCE REFERS TO THE PHYSICAL OR PSYCHOLOGICAL SYMPTOMS THAT OCCUR THAT MAKE SOMEONE FEEL LIKE THEY MUST CONTINUE TAKING THE SUBSTANCE.

WATCH FOR ACHING MUSCLES, DEPRESSION, DIFFICULTY CONCENTRATING, SWEATING

## WITHDRAWAL

WITHDRAWAL HAPPENS WHEN YOU FAIL TO PROVIDE YOUR BODY WITH THE CHEMICALS IT NOW BELIEVES IT NEEDS TO FUNCTION.

WATCH FOR ANXIETY, DEPRESSION, IRRITABILITY, SADNESS, MOOD SWINGS, FATIGUE

