

VENUSCONCEPT
delivering the promise

BASIC SKIN ANATOMY

COURSE 1
Version 2.0

DISCLAIMER

THE PURPOSE OF THIS COURSE IS TO REVIEW TREATMENTS AND TECHNIQUES AND TO PROVIDE GENERAL GUIDELINES FOR THE SAFE AND EFFECTIVE USE OF VENUS CONCEPT DEVICES.

THE CLINICAL GUIDELINES CONTAINED WITHIN THIS PRESENTATION ARE BASED ON CURRENT PRODUCT USE. HOWEVER, THEY DO NOT SUBSTITUTE FOR THE CLINICAL JUDGMENT OF THE PHYSICIAN AND THE INDIVIDUAL PATIENT'S NEEDS.

CONTENTS

IN THIS COURSE, YOU WILL LEARN

STRUCTURE

THE STRUCTURE OF
THE SKIN AND IT'S
CONTENTS

TYPE

SKIN TYPING

AGING

HOW THE SKIN AGES

PROCESS

WHAT IS FAT, CELLULITE AND
THE THERMALLY INDUCED
LYPOLYSIS PROCESS

HEALING

WOUND HEALING
PHASES

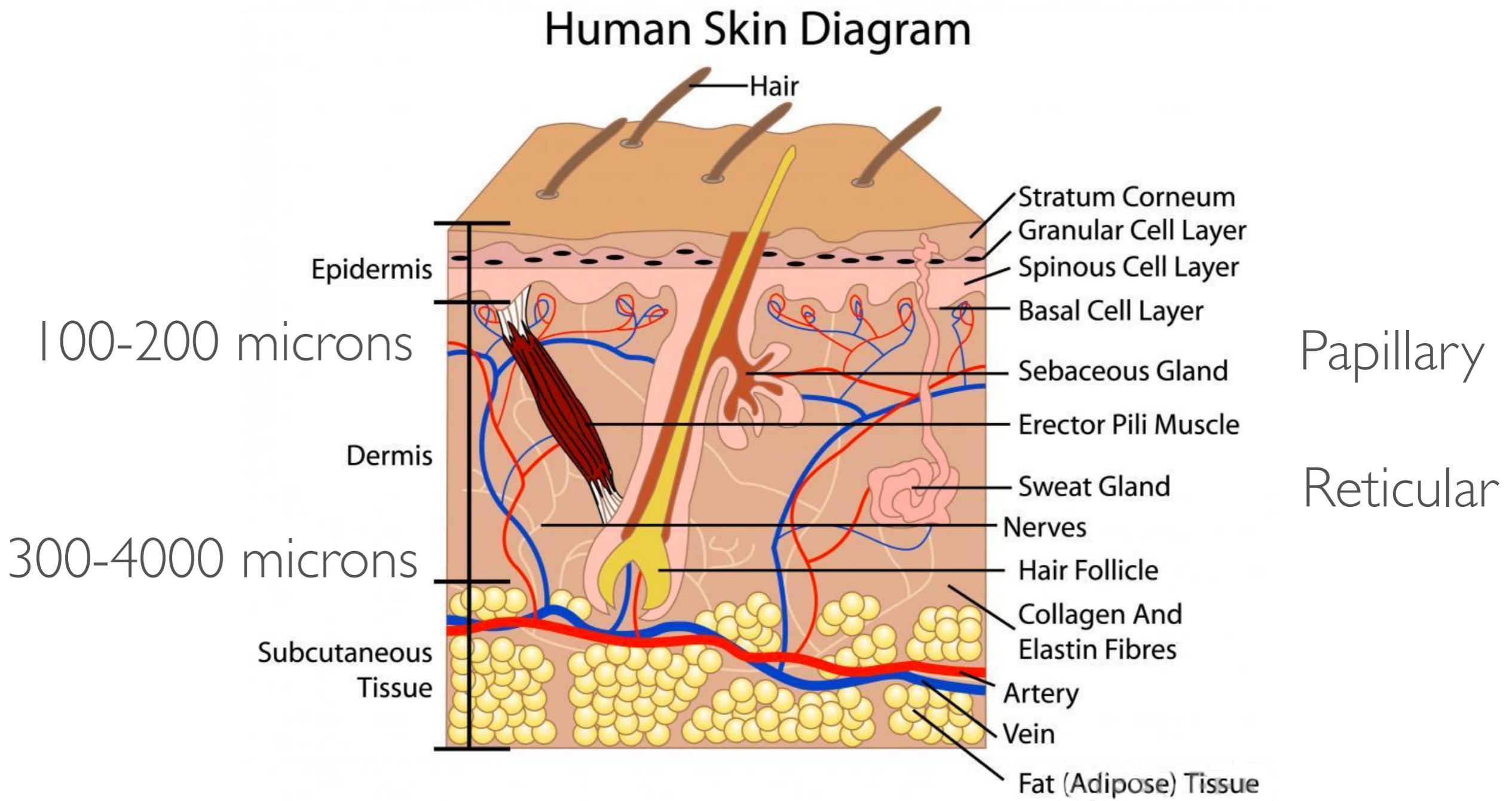
TERMS

COMMON TERMS IN SKIN
AESTHETICS

PIGMENTATION

PIGMENTATION
DISORDERS

THE STRUCTURE OF SKIN



TYPES OF COLLAGEN

COLLAGEN TYPE I

SKIN, BONE, TEETH, TENDONS, LIGAMENTS, INTERSTITIAL TISSUE

COLLAGEN TYPE II

CARTILAGE, THE FLUID IN THE EYE GLOBE

COLLAGEN TYPE III

SKIN, MUSCLE, BLOOD VESSELS

SKIN THICKNESS



The ratio in comparison to the eyelids (average 0.5 mm)

1 mm = 1000 μ

SKIN THICKNESS



The ratio in comparison to the eyelids (average 0.5 mm)

1 mm = 1000 μ

AGING SKIN



BIOLOGICAL
FACTORS

ENVIRONMENTAL
FACTORS

MECHANICAL
FACTORS

SKIN TYPES



I

II

III

IV

V

VI

FITZPATRICK SCALE

TYPE	HAIR COLOUR	SKIN COLOUR	EYE COLOUR	SUN REACTION	ETHNICITY EXAMPLES
I	Red	White	Blue Green	Always burns, never tans	Celtic, Irish
II	Blonde	White	Blue	Usually burns Tans with difficulty	Darker Caucasian
III	Brown	White to Light Brown	Brown	Sometimes burns Average tanning	Lighter Mediterraneans
IV	Brown Black	Moderate Brown	Brown Black	Rarely burns Tans with ease	Dark Italian, Greek, Asians, Hispanic
V	Black	Dark Brown	Dark	Very rarely burns Tans very easily	Middle East, Indian
VI	Black	Black	Dark		Dark African American

FITZPATRICK QUIZ

Fitzpatrick Skin Type Questionnaire

Score	0	1	2	3	4
Eye colour?	Light blue, gray or green	Blue, gray or green	Blue	Dark brown	Brown/black
Natural hair colour?	Red	Blonde	Chestnut, dark blonde	Dark brown	Black
Non-exposed skin color?	Reddish	Very pale	Pale with beige tint	Light brown	Dark brown
Freckles on non-exposed skin?	Many	Several	Few	Incidental	None
Long sun exposure with no sun block?	Blisters, redness, peeling	Burn followed by peeling	Burn sometimes then peels	Rarely burn	Never burn
What degree tan?	Hardly at all	Light colour tan	Reasonable tan	Tan very easily	Dark brown tan
Turn brown within several hours?	Hardly ever to not at all	Seldom	Sometimes	Often	Always
Facial sun reaction with no block?	Very sensitive	Sensitive	Normal	Very resistant	Never had a problem
When were you last exposed to the sun?	More than 3 months ago	2-3 months ago	1-2 months ago	Less than 1 month ago	Less than 2 weeks ago
Is the treatment area exposed to the sun?	Never	Hardly ever	Sometimes	Often	Always

Score 1-7 Type I	Score 8-16 Type II	Score 17-25 Type III	Score 26-30 Type IV	Score 30+ Type V-VI
------------------	--------------------	----------------------	---------------------	---------------------

PIGMENTATION ABNORMALITIES

HYPERPIGMENTATION

OVER PRODUCTION OF MELANIN

HYPOPIGMENTATION

ABSENCE OF MELANIN PRODUCTION

POST INFLAMMATORY
HYPERPIGMENTATION

HYPERPIGMENTATION THAT OCCURS POST INJURY TO
THE TISSUE. MAY OR MAY NOT RESOLVE WITHOUT
SEQUELA

HAIR GROWTH

THERE ARE THREE PHASES OF HAIR GROWTH DEFINED
BELOW:

ANAGEN

CATAGEN

TELOGEN

IT IS ONLY DURING THE ANAGEN PHASE THAT HAIR REACTS TO
LIGHT.

RICHARD-MERHAG TABLE

Area of the Body	Anagen	Telogen
Scalp	2-6 years	3-4 months
Beard / Chin	1 year	10 weeks
Upper Lip	16 weeks	6 weeks
Eyebrows	4-8 weeks	3 months
Ear	4-8 weeks	3 months
Legs	24 weeks	16 weeks
Arms	18 weeks	13 weeks
Axilla	4 months	3 months
Pubic	3 months	4 months

WOUND DEFINITIONS

WOUND

THE DISRUPTION OF NORMAL TISSUE
THAT RESULTS FROM PATHOLOGIC
PROCESSES BEGINNING INTERNALLY
OR EXTERNALLY TO THE INVOLVED
ORGAN

**WOUND
HEALING
RESPONSE**

THE RESTORATION OF TISSUE
CONTINUITY POST INJURY

WOUND TERMS

ACUTE WOUND

CHRONIC WOUND

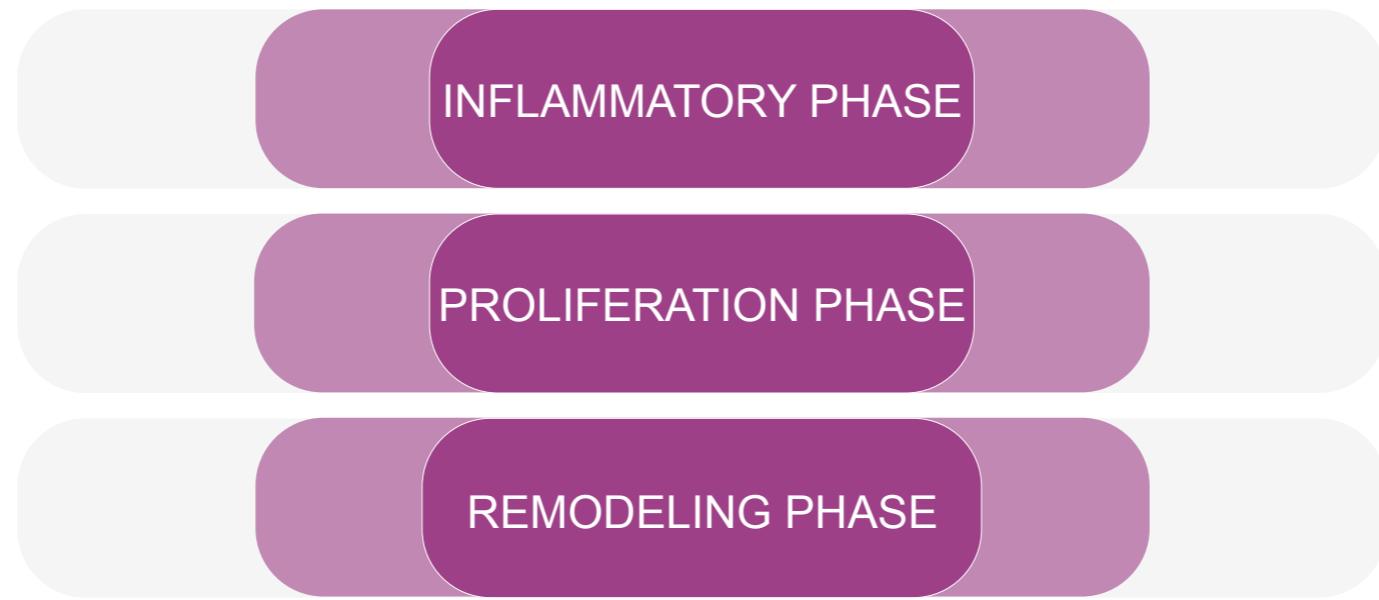
**FULL THICKNESS
WOUND**

**PARTIAL THICKNESS
WOUND**

DAMAGE ELASTIN



WOUND RESPONSE



INFLAMMATORY PHASE

- THE AREA IS WARM, RED AND SWOLLEN
- BLOOD AND FLUID ARE INCREASED IN THE AREA
- THE BLOOD COAGULATES TO FORM A CLOT
- INFLAMMATORY CELLS AND FIBROBLASTS ACCUMULATE
- NEUTROPHILS ARE SENT TO THE WOUND
- LYMPHOCYTES (WHITE BLOOD CELLS) INCREASE
- LANGERHANS AND MACROPHAGE CELLS INGEST OLD, ABNORMAL CELLS AND UNNECESSARY CELLULAR DEBRIS

PROLIFERATION PHASE

- BEGINS SEVERAL DAYS AFTER INITIAL INJURY
- INJURY SITE IS MORE TENSILE AND LESS LIKELY TO RE-OPEN
- RE-EPITHELIALIZATION OCCURS
- AREAS THAT ARE DENSE IN APPENDAGES, SUCH AS THE FACE, WILL HEAL FASTER

THAN AREAS WITH LESS APPENDAGES, SUCH AS THE PALMS OF THE HANDS

REMODELING PHASE

- OCCURS WEEKS AFTER INITIAL INJURY AND CAN TAKE AS LONG AS ONE TO TWO YEARS
- THE REORGANIZATION OF COLLAGEN
- TYPE I COLLAGEN IS REPLACED BY TYPE III COLLAGEN
- SCARS SOFTEN, FLATTEN, LOSE COLOUR, WIDEN AND CAN BECOME THICKER

FACT

SMOKERS HEAL SLOWER AND HAVE HIGHER RISKS OF INFECTION POST TREATMENT.

WHY?

SMOKING CAUSES A NARROWING OF THE BLOOD VESSELS (VASCULAR CONSTRICTION). THIS LIMITS THE BLOOD SUPPLY LIMITING OXYGEN THAT IS NECESSARY IN THE HEALING PROCESS.

SCARS

SCARING IS NORMAL AND IS MORE LIKELY
TO BE VISIBLE IN A FULL-THICKNESS
WOUND

MOST SCARS RESULTING FROM PARTIAL THICKNESS WOUNDS WILL FADE
INTO THE SURROUNDING HEALTHY TISSUE AND BE INDISTINGUISHABLE

TYPES OF SCARS

HYPERTROPHIC

RAISED SCAR, MAY REGRESS OVER TIME

ATROPHIC

INVERTED SCAR

KELOID

EXCESSIVE HEALING RESPONSE CAUSING A RAISED SCAR WHICH PRESENTS WITH THE APPEARANCE OF TENSION THROUGH IT

TYPES OF SCARS

HYPERTROPHIC

RAISED SCAR, MAY REGRESS OVER TIME



TYPES OF SCARS

ATROPHIC

INVERTED SCAR



TYPES OF SCARS



KELOID

EXCESSIVE HEALING RESPONSE CAUSING A
RAISED SCAR WHICH PRESENTS WITH THE
APPEARANCE OF TENSION THROUGH IT

TYPES OF ACNE

Grade 1 –open comedones (mild)

Grade 2 – open and close comedones and some papulopustules (moderate)

Grade 3 – pustular acne (moderate)

Grade 4 –nodulocystic acne (severe)



TYPES OF ACNE SCARS

Ice Pick



Boxcar



Rolling

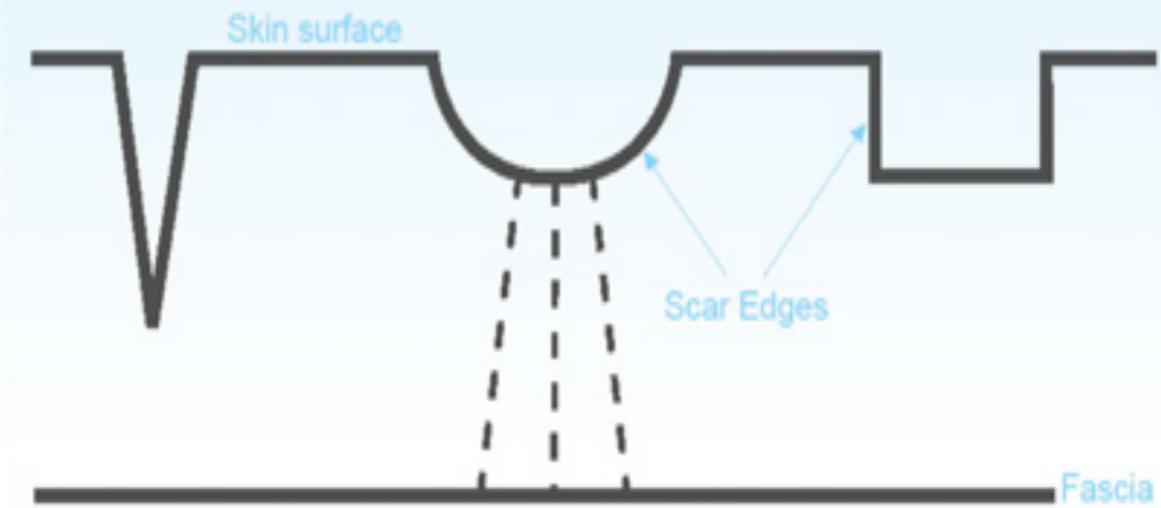


Hypertrophic



ACNE SCAR SUBTYPES

Ice Pick



Rolling

Boxcar

SKIN CONDITION TERMS

TELANGIECTASIA

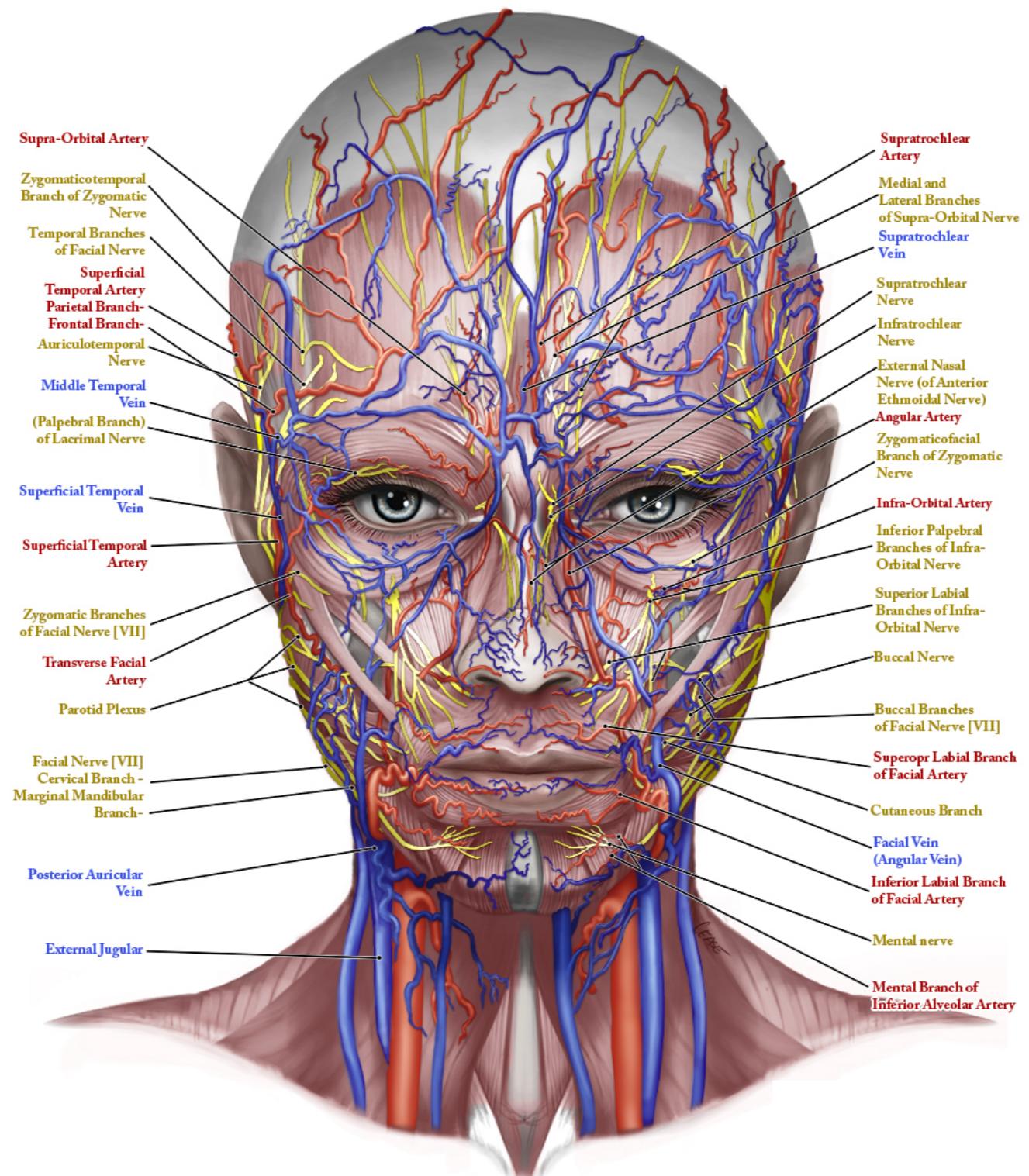
ROSACEA

RHYTIDES

SOLAR LENTIGINES

ACTINIC KERATOSIS

VESSEL NETWORK



Telangiectasia

Composed of endothelial cell-lined vessels containing colourless lymphatic fluid and blood coloured by hemoglobin. They vary in thickness, diameter and depth.



LEG VEINS

Spider like veins and deeper varicose veins are different in nature and how they are treated will vary depending on how the vein is being fed it's blood supply. Varicose veins are swollen, twisted, and enlarged veins that you can see under the skin. They are often red or blue in color. Smaller varicose veins that you can see on the surface of the skin are called spider veins.



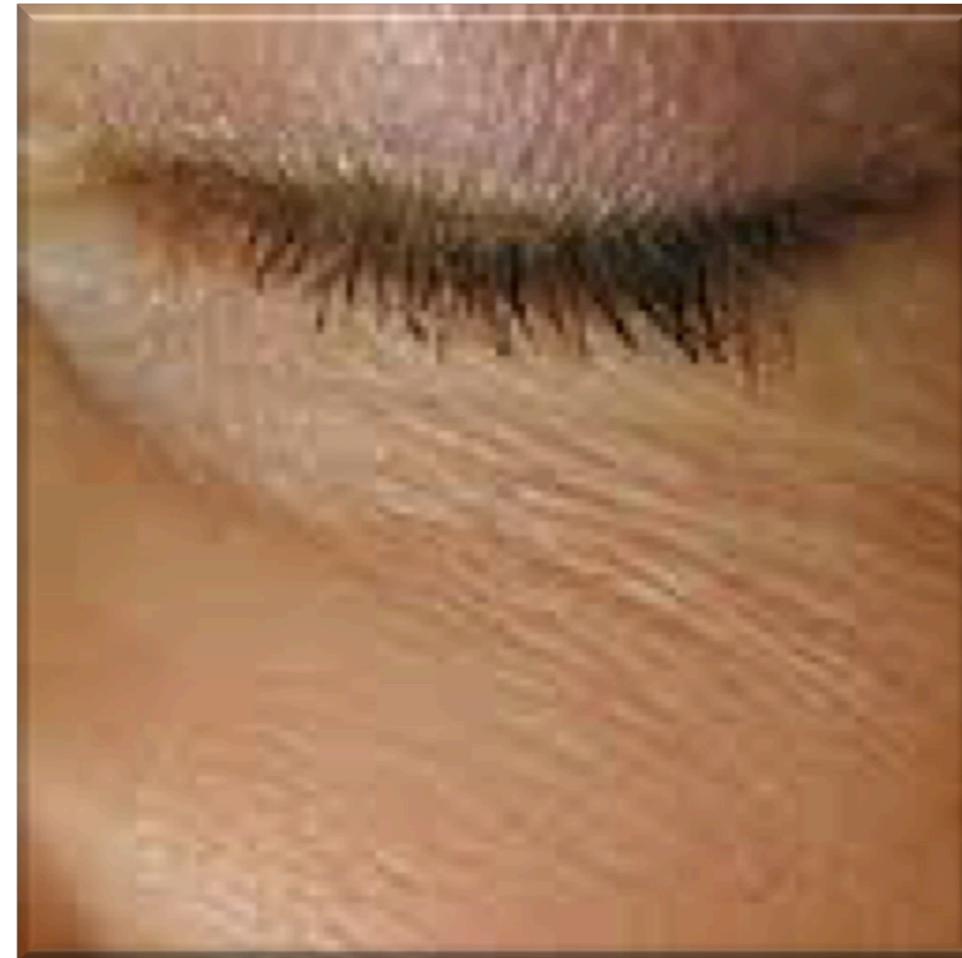
ROSACEA

- Frequent flushing or blushing on cheeks, nose, chin, forehead
- Persistent redness
- Red lines, due to enlarged blood vessels becoming visible
- Dry skin
- Burning, stinging, or itching
- Pimple-like bumps without blackheads or whiteheads



RHYTIDES

A wrinkle or furrow either created by dynamic skin contractions or static skin state.



SOLAR LENTIGINES

Solar lentigo is a harmless patch of darkened skin. It results from exposure to ultraviolet (UV) radiation, which causes local proliferation of melanocytes and accumulation of melanin within the skin cells (keratinocytes)



© 2009 Logical Images, Inc.



ACTINIC KERATOSIS

NEVER TREAT



LARGE PORES

Visible openings on the surface of the skin, sometimes accompanied by excess oil



THERMALLY INDUCED LIPOLYSIS

THERMAL STIMULATION OF ADIPOSE TISSUE RESULTS IN AUGMENTED ACTIVITY OF LIPASE MEDIATED ENZYMATIC DEGRADATION OF ADIPOCYTE TRIGLYCERIDES INTO FREE FATTY ACIDS AND GLYCEROL

LOCALIZED FAT DEPOSITS



SIGNS

FAT FOLDS OR
BULGES

CAUSES

ACCUMULATION OF FAT IN THE
HYPODERMIS FROM DIET, AGE,
HORMONES, HEREDITARY

SOLUTION

REDUCE THE FAT CELL
VOLUME AND TIGHTEN THE
SKIN

CLASSIFICATION OF CELLULITE



CLASS 0

NO DIMPLING PRESENT.
PINCH TEST FAIL.

CLASS I

NO SPONTANEOUS DIMPLING.
PINCH TEST POSITIVE FOR DIMPLING

CLASS II

SPONTANEOUS DIMPLING
WHILE STANDING

CLASS III

SPONTANEOUS DIMPLING WHILE
STANDING AND LYING

THANK YOU!!!

www.venusconcept.com

www.venustreatments.com

