

CATARACTS

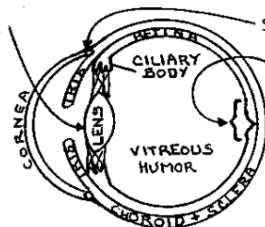
ADULT ONSET

- PARTIAL OR COMPLETE GRAYING OR OPACITY OF THE CRYSTALLINE LENS OR LENS CAPSULE WITH A PROGRESSIVE PAINLESS LOSS OF VISION.
- ETIOLOGY: DEGENERATION, TRAUMA, SYSTEMIC DISEASE SUCH AS DIABETES MEDICATIONS (CORTICOSTEROIDS) & UVEITIS (INFLAMMATION OF IRIS CILIARY BODY & CHOROID).
- VISUAL ACUITY: DIMINISHED TO LOST IN CENTRAL LENS (NUCLEAR CATARACT) WITH MYOPIA DEVELOPING IN THE EARLY STAGES. THUS PERSON CAN READ WITHOUT GLASSES EARLY ON. LATER, LOSS OF VISUAL ACUITY.
- VISUAL FIELDS (PERIPHERAL OR AMBIENT VISION): CAN BE "DULLED" OR BLURRED RESULTING IN LOW VISION. THIS CAN COMPROMISE BALANCE & SPATIO-TEMPORAL ORIENTATION INCLUDING MOVEMENT DETECTION AND DULLNESS OF COLOR VISION.
- TREATMENT: HIGH CONTRAST ENVIRONMENT, VIVID COLORS & ENLARGED PRINT ALL VITAL FOR PERSON'S ADAPTIVE ABILITIES.
- SURGERY IS ADVISED: LENS REPLACEMENT.

GLAUCOMA

ADULT ONSET

- SLIGHT TO ABSOLUTE LOSS OF VISION DUE TO INCREASED INTRAOCULAR PRESSURE.
- TWO TYPES IN ADULTS: (1) PRIMARY (OPEN & CLOSED ANGLE GLAUCOMA), (2) SECONDARY FROM PREVIOUS OCULAR DISEASE (UVEITIS), TUMOR, CATARACT & TOPICAL CORTICOSTEROID THERAPY, - ALL CAN CAUSE INCREASED INTRAOCULAR PRESSURE.
- ETIOLOGY OF 1° KIND: UNKNOWN THOUGH HEREDITY FACTORS SUSPECTED PLUS VASOMOTOR INSTABILITY.
- CHRONIC OPEN ANGLE TYPE: MOST COMMON KIND WITH INSIDIOUS LOSS OF PERIPHERAL (AMBIENT) VISION FIRST. CAN PROGRESS TO MACULAR LOSS IF UNTREATED.
- ACUTE ANGLE CLOSURE TYPE: SUDDEN ONSET (ONE EYE), SEVERE PAIN & VISUAL LOSS (TRANSITORY EPISODES). ONSET: COLORED HALOS, SEVERE PAIN IN EYE/HEAD.
- TREATMENT: MEDICAL HELP, EYE DROPS AND FREQUENT CHECK-UPS.



SCLERAL VENOUS SINUS (CANAL OF SCHLEMM) IS A CIRCULAR RING OF VEINS FOR DRAINING THE AQUEOUS FLUID (HUMOR) FROM THE EYE.

FOVEA (PIT) + MACULA (SPOT) AROUND FOVEA OR THE AREA OF VISUAL ACUITY OF RETINA.

DIABETIC RETINOPATHY

- PARTIAL TO COMPLETE LOSS OF MACULAR (CENTRAL OR ACUTE) VISION FIRST, PERIPHERAL VISION NEXT.
- ETIOLOGY: DIABETES. ESPECIALLY SEVERE IN JUVENILE DIABETES & FREQUENT IN ADULT ON-SET DIABETES. HYPERTENSION FURTHER COMPOUNDS VISUAL LOSS.
- SIGNS: INITIALLY VENOUS DILATION & SMALL HEMORRHAGES FROM MICROANEURYSMS OF CAPILLARIES OF MACULA FOLLOWED BY NEOVASCULARIZATION. NEW VESSELS CAN EXTEND INTO VITREOUS. MORE HEMORRHAGES RESULT IN FORMATION OF FIBROUS TISSUE & RETINAL DETACHMENT.
- HEMORRHAGES COMPROMISE MACULAR VISION FIRST WITH "SPOTTY" AREAS OF VISUAL SCOTOMAS (BLIND SPOTS), FOLLOWED BY LOSS OF ALL VISUAL ACUITY. NEXT, PERIPHERAL VISION IS GRADUALLY LOST AS THE MICRO-HEMORRHAGES SPREAD OUT FROM MACULAR AREA, ESPECIALLY IF NOT MEDICALLY TREATED.
- THERAPY: HIGH CONTRAST ENVIRONMENT, ET AL AS NOTED UNDER CATARACTS (ABOVE) IS VITAL.

SENILE MACULAR DEGENERATION

- THE LEADING CAUSE AMONG THE ELDERLY OF LOW VISION (AKA: DIMINISHED ABILITY TO SEE).
- ETIOLOGY: UNKNOWN THOUGH POSSIBLE HEREDITARY FACTORS EXIST. MORE COMMON IN WHITES THAN BLACKS. EQUAL DISTRIBUTION AMONG SEXES.
- TWO TYPES: (1) ATROPHIC TYPE WITH PIGMENTARY CHANGES IN THE MACULA. (2) DISCIFORM TYPE: A MOUND OF EXUDATIVE MATERIAL FORMS WITH OR WITHOUT HEMORRHAGES AROUND THE MOUND, LATER PRODUCING A SCAR. BILATERAL (IN BOTH EYES) FOR EITHER TYPE.
- SIGNS: SUDDEN OR GRADUAL ONSET. PAINLESS LOSS OF VISUAL ACUITY IN ONE EYE INITIALLY, RESULTING IN VISUAL DISTORTION. EXAMINATION REVEALS CHANGES IN BOTH EYES.
- MEDICAL TREATMENT: LIMITED.
- THERAPY: HIGH CONTRAST ENVIRONMENT, ET AL, AS NOTED UNDER CATARACTS.

JCM '96

• 1995 STATISTICS: W.K. KELLOGG EYE CTR. UNIV. OF MICH. 11 MILLION IN USA HAVE VISUAL PROBLEMS WITH A HALF-MILLION "LEGALLY BLIND." EVERY 11 MINUTES ONE PERSON BECOMES "BLIND" WITH THOSE OVER 65 YRS HAVING THE GREATEST RISK FOR EYE DISEASES.