

7 HABITS OF HIGHLY EFFECTIVE OCULAR SURFACE DISEASE MANAGEMENT

TODD A. ZELCZAK, OD, FAAO
MIDWEST OPTOMETRIC SOCIETY

DISCLOSURES

CORE SPEAKER ALLERGAN PHARMACEUTICALS
SPEAKER, NOVABAY PHARMACEUTICALS

THE DRY EYE JOURNEY

- Traditional concepts
- Factors increasing the prevalence of DED
- Landmark studies
DEWS I (2007)
DEWS II (2017)
- Estimated prevalence of DED and lack of treatment



OPTOMETRY ON THE FRONTLINES

- OD's perform over 85% of comprehensive exams
- Adult DE sufferers expected to inc>10% over next 10 yrs.
- Increasing in younger population
- A 2015 AAO poster on prevalence of DE showed >70% patients avg 40yo (n=250) had clinical signs or symptoms of OSD.
- Trattler Study



1 AOA, An action-oriented analysis of the state of the optometric profession, 2013
2 Kwon et al, 2015, AAO, Prevalence of Ocular Surface Diseases
3 The Gallup Organization, The 2012 Gallup Study of Dry Eye Sufferers, 2012

ARE WE MISSING THE DIAGNOSIS, OR IGNORING IT?

- Lack of understanding of DED
- Failure to treat patients w/o symptoms
- Medication costs
- Fear of commitment/confrontation
- Misconception of value/severity
- Laziness/apathy



1. Screening/Profiling
2. Habit Formation
3. Lid Evaluation and Expression
4. Communication and Education
5. Promote Wellness
6. Don't Back Off
7. Have a Follow-Up Plan



#1 SCREENING/PROFILING

- Questionnaires
- Risk factor analysis



#1 SCREENING/PROFILING SYMPTOM ASSESSMENT THRU QUESTIONNAIRES

- Ocular Surface Disease Index (OSDI)
- Dry Eye Questionnaire (DEQ-5)
- Standardized Patient Evaluation of Eye Dryness (SPEED)
- Symptom Assessment iN Dry Eye (SANDE)

Ocular Surface Disease Index (OSDI)

OSDI is a validated 72-item questionnaire that assesses the impact of dry eye symptoms on quality of life. The total score ranges from 0 to 100, with higher scores indicating more severe dry eye.

Question	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72
1. I have to wear eye drops or artificial tears.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72

Severe

Harpers Point Eye Associates Dry Eye Questionnaire

For Total /28

1. How often do you experience the following symptoms?

Symptom	0	1	2	3	4
1. Irritation					
2. Burning					
3. Itching					
4. Foreign body sensation					
5. Redness					
6. Blurred vision					
7. Difficulty wearing contact lenses					
8. Excessive tearing					
9. Dryness					
10. Stinging					
11. Sensitivity to light					
12. Sensitivity to wind					
13. Sensitivity to dry air					
14. Sensitivity to smoke					
15. Sensitivity to dust					
16. Sensitivity to chlorine					
17. Sensitivity to perfume					
18. Sensitivity to car exhaust					
19. Sensitivity to air conditioning					
20. Sensitivity to humidity					
21. Sensitivity to temperature changes					
22. Sensitivity to bright light					
23. Sensitivity to dark light					
24. Sensitivity to eye makeup					
25. Sensitivity to eye surgery					
26. Sensitivity to eye drops					
27. Sensitivity to eye exams					
28. Sensitivity to eye contact					

#1 SCREENING/PROFILING

PATIENT PROFILING THRU RISK ANALYSIS

Patient History

- Age
- Sex/hormonal
- Ethnicity
- Systemic Disease
- Meds
- Ocular surgeries
- Contact lens wear
- Digital device use
- Smoker

Patient Observation

- Redness
- Blink rate
- Lids
- Skin
- Environmental

#2 USING AND UNDERSTANDING DYE TESTING

IDENTIFYING HOMEOSTASIS MARKERS

TBUT

Non-Invasive
Invasive (NaFl)

Osmolarity Testing

Ocular Surface Staining



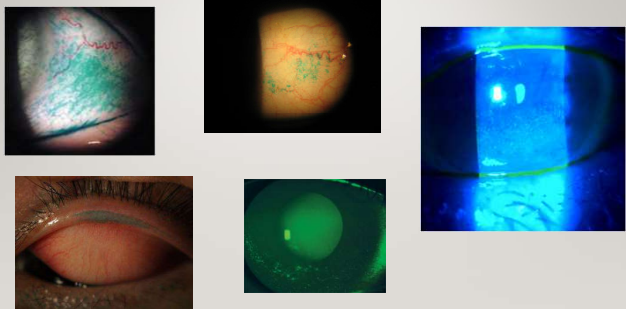
Lissamine Green → NaFl

← Mild Moderate Severe →



ASSESSMENT OF TEAR FILM COMPOSITION AND STABILITY

- After clinical observation and symptom assessment
- Objective slit lamp assessment
 - Saponification, filaments, Purkinje images
- TBUT NaFl (<10 sec instability, <5 sec DED)
- Tear Osmolarity (TearLab)
 - >308mOsmol/L, >316mOsmol/L
- InflammaDry (RPS)
 - >40 µg/ml

#3 LID EVALUATION/EXPRESSION

DETERMINING PREDOMINANT SUBTYPE OF DED

Evaluation	Expression
<p>Blepharitis</p> <ul style="list-style-type: none"> Anterior Infection vs Infestation Posterior MGD Ocular Rosacea <p>↓</p> <p>Inflammation</p>	<p>Digital</p> <p>Korb Evaluator</p> <p>Grading MGD</p>

LID EVALUATION/EXPRESSION

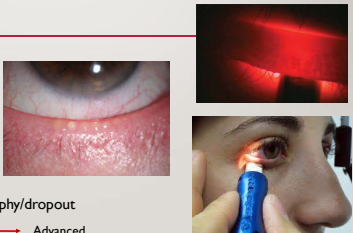
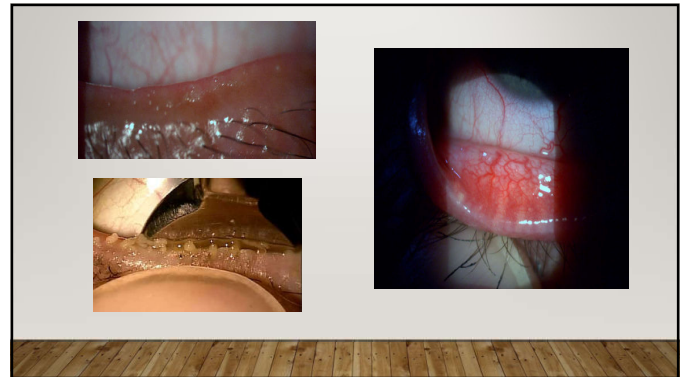
- Lids
 - Position/notching/scarring
 - Inflammation/telangiectatic vessels/rosacea
- Lashes
 - Loss/damage/trichiasis
 - Blepharitis/demodex
- Blink
 - Completeness/closure/lag
 - Frequency





ASSESSMENT OF THE MEIBOMIAN GLANDS

- MG Function
 - Expression
 - Gentle vs Hard
 - Sebum
 - Clear vs Thick
- MG Structure
 - Obstruction/dilation/shrinkage/atrophy/dropout
 - Early → Advanced

#4 COMMUNICATION AND EDUCATION

- Develop a dry eye definition for the common man
- An *explanation* of signs and symptoms
- Consequences on non-treatment and progression
- A pictures worth a thousand words

DRY EYE DEFINITION

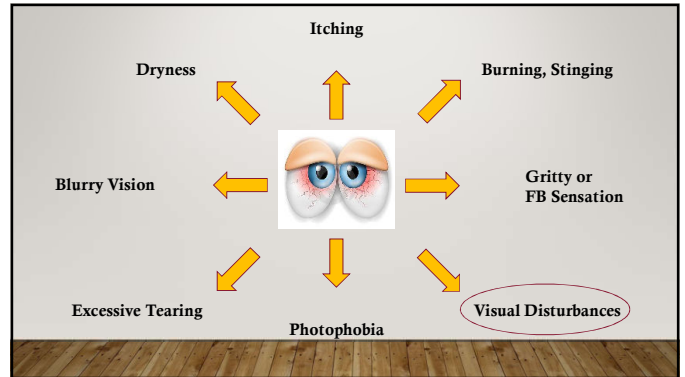
"Dry eye is a multifactorial disease of the ocular surface characterized by a loss of homeostasis of the tear film, and accompanied by ocular symptoms, in which tear film instability and hyperosmolarity, ocular surface inflammation and damage, and neurosensory abnormalities play etiological roles."

-TFOS DEWS II (2017)

DRY EYE DEFINITION

“Dry eye is a break down in the quality of your tears...progressive condition that triggers inflammation and has the potential to cause permanent damage to the glands and structures that produce and spread your tears”

-Dr Z



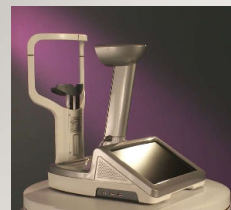
“A Picture is Worth a Thousand Words”

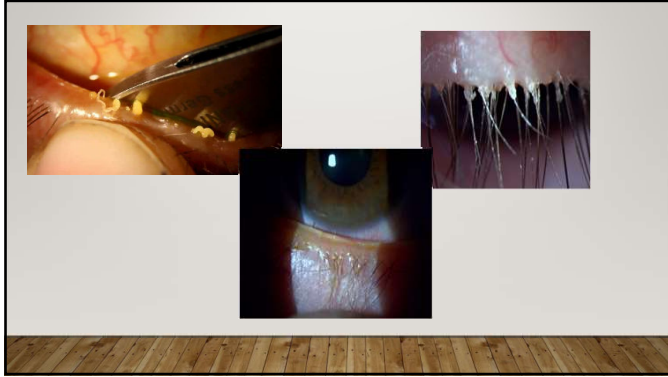


Normal

Early Structural Change

Advanced Structural Change





#5 PROMOTE WELLNESS PREVENTION

- Believe the statistics
- The dry eye annuity
- Look 10-20 yrs ahead
- Change environmental factors
- Contact lens/soln options
- Have a wellness protocol
- Treat early, treat often

Harpers Point Eye Associates

DRY EYE TREATMENT PLAN

Lid Hygiene Routine

- Cleanse eyelid margins
- Warm
- 10 Minutes

Med Complements

- Apply warm compresses 1-2 minutes

Tear Supplements

- 10-15 drops 4-6 times
- 2-4 times
- As needed

Omega 3 Supplements

-
-

#5 PROMOTE WELLNESS TREAT EARLY, TREAT OFTEN

- Medical options
 - Short term
 - Long term
- Procedural options
 - Investing in Dry Eye

#6 DON'T BACK DOWN

- Education is key to success and compliance
- Complacency sends the wrong message
- Your reputation is at stake

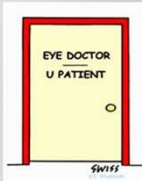


THE UNWILLING OR ASYMPTOMATIC PATIENT

“I’m not really having any problems”
 “OK... here’s some artificial tears.”
 “I’m not the type of person who likes to take medicine”
 Call me if you have a problem.”
 “I only came in to get a new contact prescription”

THE UNWILLING OR ASYMPTOMATIC PATIENT

The unwillingness or resistance to accept treatment is not an excuse to dismiss treatment. It just may change the aggressiveness at which you implement it.



#7 HAVE A FOLLOW-UP PLAN

- Short term and long term
- Develop a Dry Eye protocol
- Have a method to measure treatment success or failure



