

BLINKING EXERCISE FORM

BACKGROUND INFO ON BLINKING: WHY IT'S IMPORTANT AND ITS ROLE

- Eyelids are part of the ocular surface system and protect eyes^{1,2}
- Blinking helps stimulate the release of multiple components of your tears^{1,2}
- Spreads tears across ocular surface^{1,2}
- In healthy individuals, 80%-90% of blinks are typically complete blinks²

WHAT IS INCOMPLETE/NON-BLINKING AND WHY IT'S A PROBLEM

An incomplete or partial blink is a blink where the upper and lower lids don't fully close together. Incomplete blinking can cause problems with tear spreading across your eye and with tear evaporation. Studies show patients with incomplete blinking also have increased loss of their meibomian glands, important glands in your eyelids that provide key components of your tears.³

CAUSES

- Engaging in common tasks that require significant focus such as reading, watching t.v. or using a computer²
- Computer use reduced eye blink rate by at least 40-50% in healthy individuals⁴

WHY DOES THIS MATTER?

- A high percentage of partial blinking is associated with 2x increase in dry eye disease⁵
- Patients with a high percentage of incomplete blinks often have problems with the glands in their eyelids that secrete the oily layer of tears (meibomian glands), including poor oil output or gland dropout^{3,6}
- Patients that demonstrate a high percentage of partial blinking are likely to also demonstrate other ocular co-morbidities, such as MGD and/or dry eye disease^{6,7}

BLINKING EXERCISE / SEQUENCE EXAMPLE

BLINKING INSTRUCTIONS⁸



CLOSE - PAUSE 1, 2

1. CLOSE to teach the lids to touch
2. PAUSE for a count of 2 to reinforce the lids touching



SQUEEZE 1, 2

3. SQUEEZE down lightly for a count of 2 to help develop the muscles and to stimulate the neural pathways that control the downward phase of the blink



OPEN 1, 2

4. OPEN for a count of 2 to complete the blinking sequence

Repeat the following sequence nine more times for a total of 10 repetitions: close and count 1 and 2, squeeze and count 1 and 2, and open and count 1 and 2.

PERFORM 10 REPETITIONS EVERY HOUR FOR A MINIMUM OF 10 TIMES PER DAY EVERY DAY

ADDITIONAL NOTES / RECOMMENDATIONS

References:

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3. Bron AJ, et al. DEWS II Pathophysiology Report. *The Ocular Surface*. 2017; 15:438-510. REF2018TS4090.
4. Schlote T. Marked reduction and distinct patterns of eye blinking in patients with moderately dry eyes during video display terminal use. *Graefes Arch Clin Exp Ophthalmol*. 2004; 242:306-12. REF2020OTH4934.
5. Wang M, et al. Impact of blinking on ocular surface and tear film parameters. *The Ocular Surface*. 2018;16:424-29. REF2019OTH4088.
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7. Himebaugh NL. Blinking and Tear Break-up During Four Visual Tasks. *Optom Vis Sci*. 2009; 86:E106-E114. REF2020OTH4935.
8. Kim AD, et al. Therapeutic benefits of blinking exercises in dry eye disease. *Contact Lens and Anterior Eye*, 2020. <https://doi.org/10.1016/j.clae.2020.04.014>. REF2020OTH4897.