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# ARTIFICIAL EYELASH EXTENSIONS: HOW TO BALANCE BEAUTY WITH HEALTH?

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Corresponding member of the Bulgarian Academy of Sciences comments on  
artificial eyelash extensions and their effect on the anterior ocular surface.*

Artificial eyelash extensions are highly popular today. Consumers believe they achieve an instant improvement in appearance upon waking without the effort of everyday makeup. Moreover, the length and density of the eyelashes are a matter of choice. The procedure typically takes 30-40 minutes, followed by a "stabilization period," and requires maintenance every 2-4 weeks. Application specialists often claim the procedure is safe, with an excellent success rate unless the individual is allergic. Additionally, on the market, there are artificial, silk, and even mink-derived eyelashes, with natural fibers commanding higher prices. Interestingly, many influencers not only use this semi-permanent option but also advocate for its safety and convenience.



*Figure 1 - "Classic appearance" of standard extensions 2 weeks after application – need for maintenance because of misdirection*

# What is the truth about artificial eyelashes?

- Firstly, they hinder lid hygiene. Proper cleaning of the lids on a daily basis is crucial for preventing dry eye. Artificial eyelashes can only be washed with cold water, but ideally, they should be brushed, preferably with a specialized device. Proper maintenance, following the instructions, undoubtedly yields a better appearance but also raises the risk of acute and chronic inflammation of the delicate lid structures and glands.
- Secondly, eyelashes serve as protectors of the ocular surface. Research suggests that their function is optimal when their length is 1/3 of the longest horizontal measurement of the eye, typically 8-12 mm. The shortest extensions are 12 mm and usually begin at a distance from the root.
- Thirdly, individual artificial extensions or bundles are glued to a single eyelash, which may damage the lash as it becomes heavy at the root. Some users report that natural lashes become finer and shorter after a period of extension use.
- Fourthly, users can choose the length and volume. The so-called "Extreme volume" entails at least 3 artificial fibers per natural eyelash, which can weigh heavily on the lid. There are well-known conditions where this weight, or even hemorrhaging; might cause lid drooping. In some users, noticeable twitching occurs when the gaze shifts from down to up. The long-term effects of this phenomenon are still unknown.
- Fifthly, the glue and other chemicals used by application specialists contain cyanoacrylate and formaldehyde, both of which have negative effects on the ocular surface and eyelid structures.

In recent studies conducted at the Specialized Eye Hospital-Varna, we discovered that patients with artificial eyelash extensions experience more severe dry eyes. It took 4 weeks after removal to restore normal ocular surface parameters. In our group, restoration was achieved.



*Figure 2 - Lashes with relatively high volume but uneven appearance because of different growth of own lashes*



*Figure 3 - Severely damaged own eye lashes. The tiny newly growing eyelashes should not be traumatized with extensions because they are very fragile*



*Figure 4 - Severe demodex infestation, together with uncleaned waste material in the basis of extensions.*

# What is the truth about artificial eyelashes?

Everyone encounters occasions where appearance is crucial. For such special situations, artificial extensions might be used occasionally. Alternatively, the user compromises ocular surface health and risks future complications such as allergic and toxic reactions, natural lash damage, dry eyes, inflammation, and lid malposition. Regular use of eyelash extensions increases the risk of compromising the ocular surface.

## Conclusion

Artificial eyelash extensions are a popular semi-permanent option, but potential users must consider the side effects and complications that may affect ocular health. The danger is potentially more serious with long-term application of extensions.



*Figure 5 - Extensions on bundles 1 week after application with severe misdirections*

# MORE INFORMATION IN THE FOLLOWING REFERENCES:

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