

Supplemental Material: Survey

Asterisks (*) indicate questions that required a response.

Permission to reproduce The Total Disability Index, seen in pages 18-24 of the attached supplemental material, was obtained from the Journal of Neurosurgery Publishing Group (JNSPG). The Total Disability Index is originally depicted in Figure 1 of the article titled, “Validation of the recently developed Total Disability Index: a single measure of disability in neck and back pain patients”, published in the *Journal of Neurosurgery: Spine* and found at <https://doi.org/10.3171/2019.9.SPINE19331>. Credit for the reproduced material goes to the JNSPG. Subsequent use of material from the *Journal of Neurosurgery: Spine* requires permission from the JNSPG. Their homepage can be found at: <https://thejns.org/>.

Ergonomics Among Ophthalmic Surgeons

Demographics

All responses to this survey are **deidentified** and **anonymous**. IRB exemption was obtained from Sterling IRB (Atlanta, GA).

* 1. What is your age?

A horizontal slider control for selecting age. The slider is set to 0. The range is from 0 to 100. The word "Age" is centered above the slider. There is a small grey square button at the right end of the slider.

0 Age 100

* 2. What is your biological sex?

- Male
- Female

3. Which group best represents your ethnic background?

- Asian or Pacific Islander
- African American/Black
- Hispanic/Latino
- Native American/Alaskan Native
- White
- Other

*** 4. What area(s) of ophthalmology do you specialize in or have received fellowship training in? Please select all that apply.**

Cornea

Comprehensive ophthalmology

Glaucoma

Retina

5. What is your height?

Feet

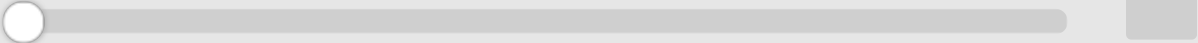
Inches

6. What is your weight to the nearest pound?

Ergonomics Among Ophthalmic Surgeons Practice Characteristics

* 7. How long have you practiced ophthalmology, including residency and fellowship?

0 Years in Practice 50+



* 8. From February 2019-February 2020, did you perform eye surgery?

Yes

No

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* 9. From February 2019-February 2020, what types of eye surgery did you perform? Please check all that apply.

- Cataract extractions in adults without femtosecond laser
- Femtosecond laser-assisted adult cataract extractions
- Minimally-invasive glaucoma surgeries (MIGS)
- Other glaucoma surgeries (tubes, trabs, etc.)
- Retinal surgeries in operating room (vitrectomy, membrane peel, etc.)
- Non-refractive corneal surgeries in operating room (transplants, pterygium excision, etc.)
- Refractive corneal procedures (LASIK, PRK, etc.) in office or operating room

Ergonomics Among Ophthalmic Surgeons

* 10. From February 2019-February 2020, did you use a 3D visualization system (i.e. heads-up display or HUD) to operate?

Yes

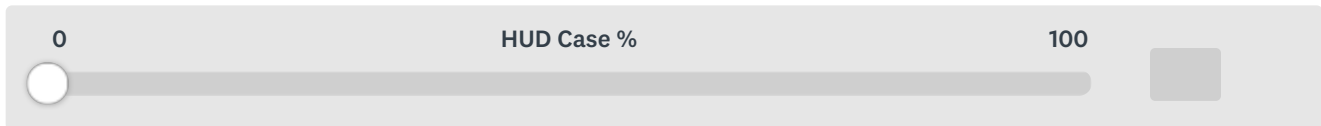
No

Ergonomics Among Ophthalmic Surgeons

* 11. Which heads-up display did you use most frequently?

- Alcon NGENUITY® 3D Visualization System
- Zeiss ARTEVO® 800 Digital Microscope
- Beyeonics One™

* 12. From February 2019-February 2020, what proportion of your surgical cases were performed using a heads-up display?

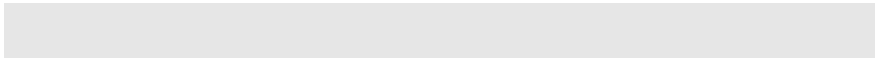


Ergonomics Among Ophthalmic Surgeons

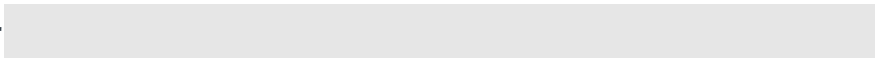
Surgical Volume

* 13. From February 2019-February 2020, how many cases did you perform for each of the following case types?

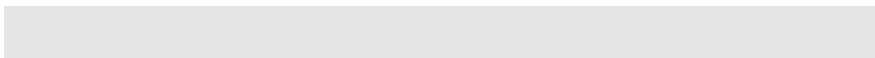
Office-based laser procedures (SLT, YAG, LPI, retinopexy, etc.)



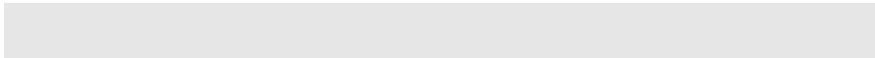
Cataract extractions in adults without femtosecond laser



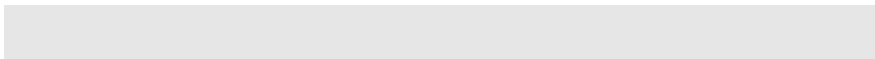
Femtosecond laser-assisted adult cataract extractions



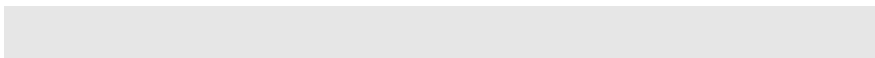
Minimally-invasive glaucoma surgeries (MIGS)



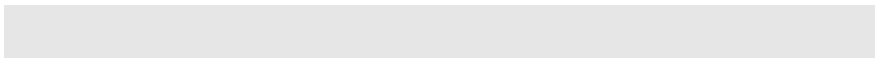
Other glaucoma surgeries (tubes, trabs, etc.)



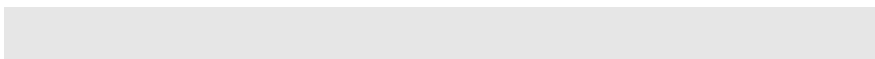
Retinal surgeries in operating room (vitrectomy, membrane peel, etc.)



Non-refractive corneal surgeries in operating room (transplants, pterygium excision, etc.)



Refractive corneal procedures (LASIK, PRK, etc.) in office or operating room



Ergonomics Among Ophthalmic Surgeons Practice Volume

* 14. From February 2019-February 2020, how many outpatient visits did you perform?

* 15. From February 2019-February 2020, how many hours per week did you work on average?

* 16. From February 2019-February 2020, how many hours per week did you spend using the computer in the clinic setting?

* 17. From February 2019-February 2020, how many weeks did you work?

Ergonomics Among Ophthalmic Surgeons

Social history and lifestyle

* 18. From February 2019-February 2020, how many hours per week did you spend conducting the following activities?

Cardiovascular exercise (running, cycling, jump rope, etc.)

Strength exercise (Weight training, suspension training, calisthenics, etc.)

Flexibility and Balance exercise (yoga, pilates, etc.)

Meditation and mindfulness

* 19. From February 2019-February 2020, how stressful was your job overall on a scale from 1-7?

Not stressful at all

Moderately stressful

Extremely stressful

* 20. Have you ever learned about ergonomics in ophthalmology through any of the following modalities? Please select all that apply.

Article

Class

Video

Conference session or presentation

Audio (e.g. radio or podcast)

I have not learned about ergonomics in ophthalmology

Advice from a colleague

*** 21. Have you ever sought the assistance of an ergonomics specialist, physical therapist, or occupational therapist?**

Yes

No

*** 22. Are you interested in learning more about ergonomics?**

Yes

No

Ergonomics Among Ophthalmic Surgeons Musculoskeletal (MSK) Health

* 23. Have you ever been diagnosed with any of the following conditions? Please select all that apply.

- | | |
|--|---|
| <input type="checkbox"/> Cervical spine or cervical disc injury or disease | <input type="checkbox"/> Shoulder or rotator cuff disease or injury |
| <input type="checkbox"/> Thoracic spine or thoracic disc injury or disease | <input type="checkbox"/> Lateral or medial epicondylitis (i.e. tennis/golfer's elbow) |
| <input type="checkbox"/> Lumbar spine or lumbar disc injury or disease | <input type="checkbox"/> Bicep tendonitis |
| <input type="checkbox"/> De Quervain's syndrome or trigger finger | <input type="checkbox"/> Unspecified back pain |
| <input type="checkbox"/> Carpal tunnel syndrome | <input type="checkbox"/> Unspecified neck pain |
| <input type="checkbox"/> Upper extremity arthritis | <input type="checkbox"/> Other musculoskeletal disease or injury |
| <input type="checkbox"/> Lower extremity arthritis | <input type="checkbox"/> I have never been diagnosed with any MSK condition |

* 24. From February 2019-February 2020, did you experience any episodes of musculoskeletal pain, discomfort, or disability?

- Yes
- No

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Musculoskeletal Health

* 25. From February 2019-February 2020, how frequent were your episodes of musculoskeletal pain, discomfort, or disability?

- Daily
- Weekly
- Monthly
- Once every few months
- Less frequent than once every few months

* 26. Is your musculoskeletal pain, discomfort, or disability recurring or chronic?

- Yes
- No

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Chronic pain duration

* 27. How long have you suffered from recurring or chronic musculoskeletal pain, discomfort, or disability?

Years

Months

Ergonomics Among Ophthalmic Surgeons

* 28. When do you feel your musculoskeletal pain, discomfort, or disability? Please check all that apply.

- | | |
|--|---|
| <input type="checkbox"/> Examining patients in the clinic setting
(e.g. using a slit lamp, indirect ophthalmoscope, etc.) | <input type="checkbox"/> Conducting surgery |
| <input type="checkbox"/> Using the workplace computer | <input type="checkbox"/> Outside of work |
| <input type="checkbox"/> Performing in-office laser procedures
(e.g. LASIK, YAG, SLT, etc.) | <input type="checkbox"/> I do not feel pain, discomfort, or disability in any of these contexts |

* 29. Is your musculoskeletal pain, discomfort, or disability worsened or exacerbated by the following activities? Please check all that apply.

- Examining patients in the clinic setting (e.g. using a slit lamp, indirect ophthalmoscope, etc.)
- Using the workplace computer
- Performing in-office laser procedures (e.g. LASIK, YAG, SLT, etc.)
- Conducting surgery
- The pain, discomfort, or disability is not worsened or exacerbated by any of these activities

*** 30. How much does your musculoskeletal pain, discomfort, or disability affect your ability to conduct the following tasks?**

	Does not affect	Makes it slightly more difficult	Makes it moderately more difficult	Makes it significantly more difficult	Caused me to stop this activity
Examining patients in the clinic setting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Performing in-office laser procedures	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Conducting surgery	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 31. How many hours have you cut from your workweek because of musculoskeletal pain, discomfort, or disability? Please type "0" if MSK concerns have not caused you to change your hours.**

Ergonomics Among Ophthalmic Surgeons

Location

* 32. Where is your pain, discomfort, or disability located during attacks? Please select all that apply

- Cervical spine or neck
- Thoracic spine or upper back
- Lumbar spine or lower back
- Shoulders
- Elbows
- Wrists and fingers
- Hips
- Knees
- Feet and toes

Ergonomics Among Ophthalmic Surgeons

* 33. Since you did not report neck or back pain, you will be scored on the Total Disability Index (TDI) with the answers boxed in red in the below image. Do you agree with these choices? If you disagree with any of the 14 answers displayed, please select "No" at the bottom of this page.

TOTAL DISABILITY INDEX QUESTIONNAIRE	
<i>This questionnaire has been designed to assess how your neck and back pain have affected your ability to manage everyday activities. We realize that you may feel that more than one statement relates to you, but please mark only the ONE CHOICE that most closely describes your problem right now.</i>	
<p><i>SECTION 1 – Pain Intensity</i></p> <p><input checked="" type="radio"/> I have no pain at the moment.</p> <p><input type="radio"/> The pain is very mild at the moment.</p> <p><input type="radio"/> The pain is moderate at the moment.</p> <p><input type="radio"/> The pain is fairly severe at the moment.</p> <p><input type="radio"/> The pain is very severe at the moment.</p> <p><input type="radio"/> The pain is the worst imaginable at the moment.</p>	<p><i>SECTION 8 – Social Life</i></p> <p><input checked="" type="radio"/> My social life is normal and causes me no extra pain.</p> <p><input type="radio"/> My social life is normal but increases the degree of pain.</p> <p><input type="radio"/> Pain has no significant effect on my social life apart from limiting my more energetic interests, e.g. sport, etc.</p> <p><input type="radio"/> Pain has restricted my social life and I do not go out as often.</p> <p><input type="radio"/> Pain has restricted my social life to my home.</p> <p><input type="radio"/> I have no social life because of pain.</p>
<p><i>SECTION 2 – Personal Care (washing, dressing, etc.)</i></p> <p><input checked="" type="radio"/> I can look after myself normally without causing extra pain.</p>	<p><i>SECTION 9– Travelling</i></p> <p><input checked="" type="radio"/> I can travel anywhere without pain.</p>

<ul style="list-style-type: none"> <input type="radio"/> I can look after myself normally but it is very painful. <input type="radio"/> It is painful to look after myself and I am slow and careful. <input type="radio"/> I need some help but manage most of my personal care. <input type="radio"/> I need help everyday in most aspects of self care. <input type="radio"/> I do not get dressed, wash with difficulty and stay in bed. 	<ul style="list-style-type: none"> <input type="radio"/> I can travel anywhere but it gives extra pain. <input type="radio"/> Pain is bad but I manage journeys over two hours. <input type="radio"/> Pain restricts me to journeys less than one hour. <input type="radio"/> Pain restricts me to short necessary journeys under 30 minutes. <input type="radio"/> Pain prevents me from travelling except to receive treatment.
<p>SECTION 3 – Lifting</p> <ul style="list-style-type: none"> <input type="radio"/> I can lift heavy weights without extra pain. <input type="radio"/> I can lift heavy weights but it gives extra pain. <input type="radio"/> Pain prevents me from lifting heavy weights off the floor but I can manage if they are conveniently positioned, e.g. on a table. <input type="radio"/> Pain prevents me from lifting heavy weights but I can manage light to medium weights if they are conveniently positioned. <input type="radio"/> I can lift only very light weights. <input type="radio"/> I cannot lift or carry anything at all. 	<p>SECTION 10 – Reading</p> <ul style="list-style-type: none"> <input type="radio"/> I can read as much as I want with no pain in my neck. <input type="radio"/> I can read as much as I want with slight pain in my neck. <input type="radio"/> I can read as much as I want with moderate pain in my neck. <input type="radio"/> I cannot read as much as I want because of moderate pain in my neck. <input type="radio"/> I cannot read as much as I want because of severe pain in my neck. <input type="radio"/> I cannot read at all.
<p>SECTION 4 – Walking</p> <ul style="list-style-type: none"> <input type="radio"/> Pain does not prevent me from walking any distance. <input type="radio"/> Pain prevents me from walking more than 1 mile. <input type="radio"/> Pain prevents me from walking more than 1/4 mile. <input type="radio"/> Pain prevents me from walking more than 100 yards. <input type="radio"/> I can only walk using a stick or crutches. <input type="radio"/> I am in bed most of the time and have to crawl to the toilet. 	<p>SECTION 11 – Headaches</p> <ul style="list-style-type: none"> <input type="radio"/> I have no headaches at all. <input type="radio"/> I have slight headaches which come infrequently. <input type="radio"/> I have moderate headaches which come infrequently. <input type="radio"/> I have moderate headaches which come frequently. <input type="radio"/> I have severe headaches which come frequently. <input type="radio"/> I have headaches almost all the time.
<p>SECTION 5 – Sitting</p> <ul style="list-style-type: none"> <input type="radio"/> I can sit in any chair as long as I like. <input type="radio"/> I can sit in my favorite chair as long as I like. <input type="radio"/> Pain prevents me from sitting for more than 1 hour. <input type="radio"/> Pain prevents me from sitting for more than 1/2 an hour. <input type="radio"/> Pain prevents me from sitting for more than 10 minutes. <input type="radio"/> Pain prevents me from sitting at all. 	<p>SECTION 12 – Concentration</p> <ul style="list-style-type: none"> <input type="radio"/> I can concentrate fully when I want to with no difficulty. <input type="radio"/> I can concentrate fully when I want to with slight difficulty. <input type="radio"/> I have a fair degree of difficulty in concentrating when I want to. <input type="radio"/> I have a lot of difficulty in concentrating when I want to. <input type="radio"/> I have a great deal of difficulty in concentrating when I want to. <input type="radio"/> I cannot concentrate at all.
<p>SECTION 6 – Standing</p> <ul style="list-style-type: none"> <input type="radio"/> I can stand as long as I want without extra pain. <input type="radio"/> I can stand as long as I want but it gives me extra pain. <input type="radio"/> Pain prevents me from standing for more than 1 hour. <input type="radio"/> Pain prevents me from standing for more than 1/2 an hour. <input type="radio"/> Pain prevents me from standing for more than 10 minutes. <input type="radio"/> Pain prevents me from standing at all. 	<p>SECTION 13 – Work</p> <ul style="list-style-type: none"> <input type="radio"/> I can do as much work as I want to. <input type="radio"/> I can only do my usual work, but no more. <input type="radio"/> I can do most of my usual work, but no more. <input type="radio"/> I cannot do my usual work. <input type="radio"/> I can hardly do any work at all. <input type="radio"/> I cannot do any work at all.
<p>SECTION 7 – Sleeping</p> <ul style="list-style-type: none"> <input type="radio"/> My sleep is never disturbed by pain. <input type="radio"/> My sleep is occasionally disturbed by pain. <input type="radio"/> Because of pain I have less than 6 hours sleep. <input type="radio"/> Because of pain I have less than 4 hours sleep. <input type="radio"/> Because of pain I have less than 2 hours sleep. <input type="radio"/> Pain prevents me from sleeping at all. 	<p>SECTION 14 – Driving</p> <ul style="list-style-type: none"> <input type="radio"/> I can drive my car without any neck pain. <input type="radio"/> I can drive my car as long as I want with slight pain in my neck. <input type="radio"/> I can drive my car as long as I want with moderate pain in my neck. <input type="radio"/> I cannot drive my car as long as I want because of moderate pain in my neck. <input type="radio"/> I can hardly drive at all because of severe pain in my neck. <input type="radio"/> I cannot drive my car at all.

Yes, I agree with all of these answers

No, I disagree with at least one of these answers

Ergonomics Among Ophthalmic Surgeons

Total Disability Index

The following fourteen questions have been designed to assess how your neck and/or back pain have affected your ability to manage everyday activities. For each question, please mark only the ONE CHOICE that most clearly describes your problem right now.

* 34. Pain intensity

- | | |
|---|--|
| <input type="radio"/> I have no pain at the moment | <input type="radio"/> The pain is fairly severe at the moment |
| <input type="radio"/> The pain is very mild at the moment | <input type="radio"/> The pain is very severe at the moment |
| <input type="radio"/> The pain is moderate at the moment | <input type="radio"/> The pain is the worst imaginable at the moment |

* 35. Personal Care (Washing, Dressing, etc.)

- | | |
|--|--|
| <input type="radio"/> I can look after myself normally without causing extra pain | <input type="radio"/> I need some help but manage most of my personal care |
| <input type="radio"/> I can look after myself normally but it is very painful | <input type="radio"/> I need help everyday in most aspects of self care |
| <input type="radio"/> It is painful to look after myself and I am slow and careful | <input type="radio"/> I do not get dressed, I wash with difficulty and stay in bed |

* 36. Lifting

- | | |
|---|--|
| <input type="radio"/> I can lift heavy weights without extra pain | <input type="radio"/> Pain prevents me from lifting heavy weights but I can manage light to medium weights if they are conveniently positioned |
| <input type="radio"/> I can lift heavy weights but it gives extra pain | <input type="radio"/> I can lift only very light weights |
| <input type="radio"/> Pain prevents me lifting heavy weights off the floor, but I can manage if they are conveniently placed, e.g. on a table | <input type="radio"/> I cannot lift or carry anything at all |

*** 37. Walking**

- Pain does not prevent me from walking any distance
- Pain prevents me from walking more than 1 mile
- Pain prevents me from walking more than $\frac{1}{4}$ mile
- Pain prevents me from walking more than 100 yards
- I can only walk using a stick or crutches
- I am in bed most of the time and have to crawl to the toilet

*** 38. Sitting**

- I can sit in any chair as long as I like
- I can only sit in my favorite chair as long as I like
- Pain prevents me from sitting more than 1 hour
- Pain prevents me from sitting more than $\frac{1}{2}$ an hour
- Pain prevents me from sitting more than 10 minutes
- Pain prevents me from sitting at all

*** 39. Standing**

- I can stand as long as I want without extra pain
- I can stand as long as I want but it gives me extra pain
- Pain prevents me from standing for more than one hour
- Pain prevents me from standing for more than $\frac{1}{2}$ an hour
- Pain prevents me from standing for more than 10 minutes
- Pain prevents me from standing at all

*** 40. Sleeping**

- My sleep is never disturbed by pain
- My sleep is occasionally disturbed by pain
- Because of pain I have less than 6 hours of sleep
- Because of pain I have less than 4 hours of sleep
- Because of pain I have less than 2 hours of sleep
- Pain prevents me from sleeping at all

*** 41. Social life**

- My social life is normal and causes me no extra pain
- My social life is normal but increases the degree of pain
- Pain has no significant effect on my social life apart from limiting my more energetic interests, e.g sport, etc.
- Pain has restricted my social life and I do not go out as often
- Pain has restricted my social life to my home
- I have no social life because of pain

*** 42. Traveling**

- I can travel anywhere without pain
- I can travel anywhere but it gives me extra pain
- Pain is bad, but I manage journeys over 2 hours
- Pain restricts me to journeys less than 1 hour
- Pain restricts me to short necessary journeys under 30 minutes
- Pain prevents me from traveling except to receive treatment

*** 43. Reading**

- I can read as much as I want to with no pain in my neck
- I can read as much as I want to with slight pain in my neck
- I can read as much as I want with moderate pain in my neck
- I cannot read as much as I want because of moderate pain in my neck
- I cannot read as much as I want because of severe pain in my neck
- I cannot read at all

*** 44. Headaches**

- I have no headaches at all
- I have slight headaches, which come infrequently
- I have moderate headaches, which come infrequently
- I have moderate headaches, which come frequently
- I have severe headaches, which come frequently
- I have headaches almost all the time

*** 45. Concentration**

- I can concentrate fully when I want to with no difficulty
- I can concentrate fully when I want to with slight difficulty
- I have a fair degree of difficulty in concentrating when I want to
- I have a lot of difficulty in concentrating when I want to
- I have a great deal of difficulty in concentrating when I want to
- I cannot concentrate at all

*** 46. Work**

- I can do as much work as I want to
- I can only do my usual work, but no more
- I can do most of my usual work, but no more
- I cannot do my usual work
- I can hardly do any work at all
- I can't do any work at all

47. Driving

- I can drive my car without any neck pain
- I can drive my car as long as I want with slight pain in my neck
- I can drive my car as long as I want with moderate pain in my neck
- I cannot drive my car as long as I want because of moderate pain in my neck
- I can hardly drive at all because of severe pain in my neck
- I cannot drive my car at all

Ergonomics Among Ophthalmic Surgeons

Additional MSK Concerns

* 48. Which of the following workplace changes or additions have you made to prevent musculoskeletal problems or to reduce your pain, discomfort, or disability? Please select all that apply.

- | | |
|--|---|
| <input type="checkbox"/> Changing your bodily position and posture in the clinic setting | <input type="checkbox"/> Modifying existing equipment (e.g. ocular extensions on a traditional analogue microscope) |
| <input type="checkbox"/> Changing your bodily position and posture in operating room | <input type="checkbox"/> Adding new equipment (e.g. a new surgical display system) |
| <input type="checkbox"/> Adjusting patient positioning on chairs in the clinic setting | <input type="checkbox"/> Adjusting your computer screen or computer desk |
| <input type="checkbox"/> Adjusting patient positioning on the bed in the operating room | <input type="checkbox"/> Wearing more comfortable clothing or shoes |
| <input type="checkbox"/> Changing the type of chair you use in the clinic setting | <input type="checkbox"/> None of the above |
| <input type="checkbox"/> Changing the type of chair you use in the operating room | |

*** 49. Which of the following treatments have you used to prevent musculoskeletal problems or to reduce your pain, discomfort, or disability? Please select all that apply.**

- | | |
|---|---|
| <input type="checkbox"/> Manual therapy (Physical therapy, water therapy, chiropractor, podiatry, massage etc.) | <input type="checkbox"/> Surgical interventions |
| <input type="checkbox"/> Increased exercise (yoga, weightlifting, etc.) | <input type="checkbox"/> Steroid injections |
| <input type="checkbox"/> Stretching more frequently | <input type="checkbox"/> Acupuncture |
| <input type="checkbox"/> Meditation and/or mindfulness | <input type="checkbox"/> Herbal remedies or alternative medicines |
| <input type="checkbox"/> Over-the-counter oral medications (muscle relaxers, NSAIDs, acetaminophen, etc.) | <input type="checkbox"/> Hot/cold packs or body wraps |
| <input type="checkbox"/> Prescription opioids | <input type="checkbox"/> None of the above |
| <input type="checkbox"/> Medical marijuana or cannabidiol (CBD) | |

Ergonomics Among Ophthalmic Surgeons

Heads-up display?

* 50. Earlier in this survey, did you select "3D visualization system (i.e. heads-up display or HUD)" as a tool used for eye surgery?

Yes

No

Ergonomics Among Ophthalmic Surgeons

HUD Outcomes

* 51. How long have you used a heads-up display (HUD) for?

Years

Months

* 52. If heads-up display (HUD) use has decreased your pain, discomfort, or disability, please indicate where. Select all locations that apply.

- HUD use has not decreased my pain, discomfort, or disability anywhere
- Cervical spine or neck
- Thoracic spine or upper back
- Lumbar spine or lower back
- Shoulders
- Elbows
- Wrists and fingers
- Hips
- Knees
- Feet and toes

* 53. Does HUD use decrease or increase your overall pain, discomfort, or disability while operating compared to traditional analogue microscope use?

Significantly decreases	Moderately decreases	Mildly decreases	Neither decreases nor increases	Mildly increases	Moderately increases	Significantly increases
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 54. Does HUD use decrease or increase your overall pain, discomfort, or disability outside of the operating room compared to traditional analogue microscope use?**

Significantly decreases	Moderately decreases	Mildly decreases	Neither decreases nor increases	Mildly increases	Moderately increases	Significa
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 55. If HUD use decreased your pain, discomfort, or disability, how long did it take for you to notice a change in those symptoms after initiating HUD use? Please enter 0 if no decrease was noticed.**

Years

Months

*** 56. Do you believe that you could perform more surgeries on days when you use HUD compared to days when you use a traditional analogue microscope?**

Yes

No

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* 57. Why do you believe that you can perform more surgeries on days when you use HUD? Please select all that apply.

- HUD use is less fatiguing for me
- HUD use is more time-efficient in the operating room
- Other (please specify)

* 58. What percentage increase did you observe in your daily surgical case volume with HUD use compared to traditional analogue microscope use? Please enter 0 if no increase was noted.

0% increase in case volume100%+

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* 59. Would you advise against or recommend using HUD to other eye surgeons?

Strongly advise against	Moderately advise against	Mildly advise against	Neither advise against nor recommend	Mildly recommend	Moderately recommend	Strongly recommend
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* 60. Has HUD placement caused any ergonomic challenges, difficulties, or inconveniences?

- No
- Yes (please specify)

Ergonomics Among Ophthalmic Surgeons

Non-HUD Question

* 61. Which of the following reasons describe why you do not currently use a heads-up display (HUD) in the operating room? Please select all that apply:

- My employer or surgical site has not purchased a HUD
- I have no problems or inconveniences that a HUD would solve
- I have a colleague who used a HUD and advised against using it
- I have tried a HUD and determined it was not worth adopting
- HUDs are too expensive relative to their potential benefits
- HUDs would make some or all of my procedures more difficult to perform
- HUDs would take too long to learn
- HUDs would require too much maintenance
- HUDs would be inconvenient to adjust or cause ergonomic problems
- HUDs have too much latency or technical glitches
- Other (please specify)

Ergonomics Among Ophthalmic Surgeons

Refer-a-friend

62. We have found that ophthalmologists would like to learn more about MSK problems and are happy to contribute to our knowledge. If you have friends or colleagues who may be interested in sharing their experiences with musculoskeletal problems in ophthalmology or may be interested in sharing experiences with HUD, you can invite them to participate in the survey by providing their emails below. We will not share their emails beyond the scope of this survey invitation.