

On behalf of Vision Expo, we sincerely thank you for being with us this year.

#### Vision Expo Has Gone Green!

We have eliminated all paper session evaluation forms. Please be sure to complete your electronic session evaluations online when you login to request your CE Letter for each course you attended! Your feedback is important to us as our Education Planning Committee considers content and speakers for future meetings to provide you with the best education possible.



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## Financial Disclosures

- Consultant with LKC 
- Consultant with Adnexa Ocular Amniotic Membranes 
- Consultant with Sight Science 
- Member Board of Directors 

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## Optometric Management of Obesity



Ansel T. Johnson, OD

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## Ansel T. Johnson, OD

- Adjunct Professor:
  - Midwestern Chicago College of Optometry (Externship site)
  - Kentucky College of Optometry – UPIKE (Externship site)
  - New England College of Optometry (Externship site)
  - Southern College of Optometry (Externship site)
- Additional Clinical Externship Site
  - UAB College of Optometry
- Medical Director – United Eye Care Providers
- Founder, CEO – Healthy Living With A Vision Foundation
  - (A 501c3 Organization)

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## Course Objectives

- Knowledge of US Statistics and Trends of Obesity
- Knowledge of Definition of Obesity
- Knowledge of Systemic and Ocular Effects of Obesity
- Optometric guidelines for Care of Patients Living With Obesity
- Office Accommodations for Patients Obesity

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## US Population Trends for Obesity

- US Obesity Trends vs Diabetes Trends

Obesity Defined - other concepts



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### Prevalence<sup>1</sup> of Self-Reported Obesity Among U.S. Adults by State and Territory, BRFSS, 2011

<sup>1</sup> Prevalence estimates reflect BRFSS methodological changes started in 2011. These estimates should not be compared to prevalence estimates before 2011.



\*Sample size <50, the relative standard error (dividing the standard error by the prevalence) ≥30%, or no data in a specific year.



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### Prevalence<sup>1</sup> of Self-Reported Obesity Among U.S. Adults by State and Territory, BRFSS, 2012

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### Prevalence<sup>1</sup> of Self-Reported Obesity Among U.S. Adults by State and Territory, BRFSS, 2013

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### Prevalence<sup>1</sup> of Self-Reported Obesity Among U.S. Adults by State and Territory, BRFSS, 2014

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\*Sample size <50, the relative standard error (dividing the standard error by the prevalence) ≥30%, or no data in a specific year.



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### Prevalence<sup>1</sup> of Self-Reported Obesity Among U.S. Adults by State and Territory, BRFSS, 2015

<sup>1</sup> Prevalence estimates reflect BRFSS methodological changes started in 2011. These estimates should not be compared to prevalence estimates before 2011.



\*Sample size <50, the relative standard error (dividing the standard error by the prevalence) ≥30%, or no data in a specific year.



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### Prevalence<sup>1</sup> of Self-Reported Obesity Among U.S. Adults by State and Territory, BRFSS, 2016

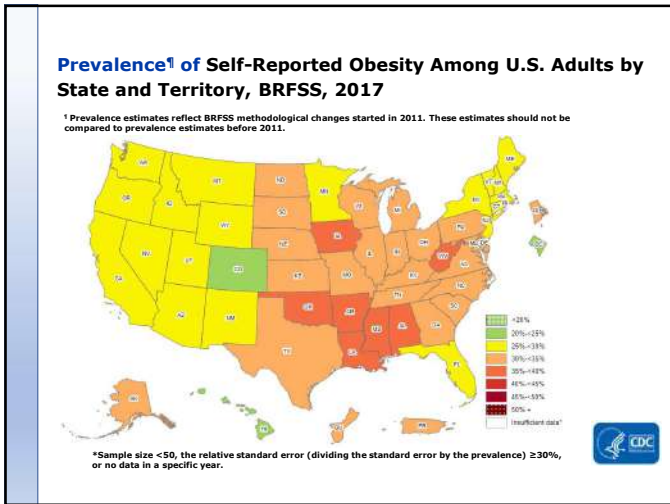
<sup>1</sup> Prevalence estimates reflect BRFSS methodological changes started in 2011. These estimates should not be compared to prevalence estimates before 2011.



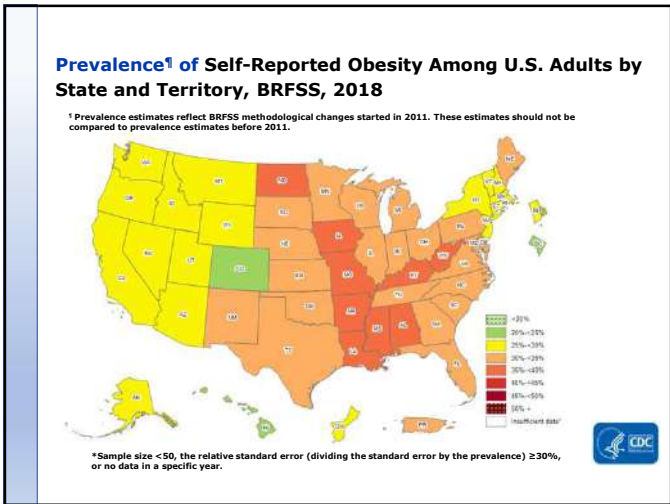
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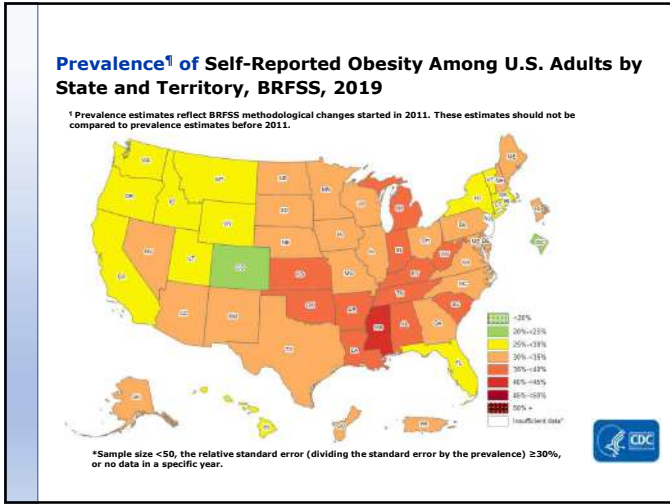
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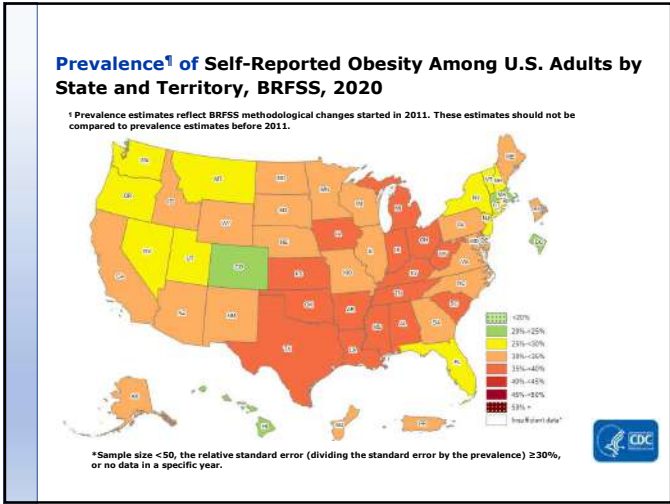
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## Prevalence<sup>1</sup> of Self-Reported Obesity Among U.S. Adults by State and Territory, BRFSS, 2020

### Summary

- ❑ No state or territory had a prevalence of obesity less than 20%.
- ❑ 3 states (Colorado, Hawaii, Massachusetts) and the District of Columbia had a prevalence of obesity between 20% and <25%.
- ❑ 11 states had a prevalence of obesity between 25% and <30%.
- ❑ 20 states, Guam, and Puerto Rico had a prevalence of obesity between 30% and <35%.
- ❑ 16 states (Alabama, Arkansas, Delaware, Indiana, Iowa, Kansas, Kentucky, Louisiana, Michigan, Mississippi, Ohio, Oklahoma, South Carolina, Tennessee, Texas, and West Virginia) had a prevalence of obesity between 35% and <40%.
- ❑ No state had a prevalence of obesity of 40% or greater.

<sup>1</sup>Prevalence estimates reflect BRFSS methodological changes started in 2011. These estimates should not be compared to prevalence estimates before 2011.

<http://www.cdc.gov/obesity/data/prevalence-maps.html>



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## Being Overweight Defined

- **Definition:** Being overweight refers to having more body weight than what is considered healthy for one's height.
- **Body Mass Index (BMI):** Typically defined as having a BMI between 25 and 29.9.
- **Adipose Tissue:** Increased but not necessarily excessive levels of adipose (fat) tissue.
- **Health Risks:** Associated with some health risks, including a higher risk of developing conditions like hypertension and high cholesterol.
- **Severity Levels:** Can vary in severity and health impact based on factors like muscle mass and overall health.
- **Prevalence:** More common than obesity and affects a significant portion of the population.
- **Management:** Often manageable through lifestyle changes, including diet and exercise.

Source: [www.mayoclinic.org](http://www.mayoclinic.org)

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## Obesity Defined

- **Definition:** Obesity is a complex disease involving having too much body fat. Obesity isn't just a cosmetic concern. It's a medical problem.
- **Causes or Contributing factors:** results from inherited, physiological and environmental factors, combined with diet, physical activity and exercise choices.
- **Health Risks:** Associated with numerous health complications, including heart disease, diabetes, stroke, and certain types of cancer.
- **Severity Levels:** Often classified into different classes (e.g., Class I, II, III) based on BMI.
- **Epidemic:** Considered a global epidemic due to its prevalence and significant health impact.
- **Management:** Often requires medical intervention, such as dietary changes, exercise, medication, or surgery.

Source: [www.mayoclinic.org](http://www.mayoclinic.org)

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## Obesity Defined

- **BMI Range:** Obesity is generally defined as having a BMI of 30 or higher, while being overweight falls within the range of 25 to 29.9.
- **Health Risks:** Obesity is associated with a higher risk of severe health conditions compared to being overweight.
- **Management:** Obesity often requires more intensive medical management, whereas being overweight can often be addressed with lifestyle changes alone.
- **Epidemiology:** Obesity is considered a global epidemic, while being overweight is a prevalent issue but not as severe in terms of health risks.

Source: [www.mayoclinic.org](http://www.mayoclinic.org)

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## Medical Definition of Obesity

- Obesity Defined - other concepts
- Another method of obesity assessment
- Measuring waist circumference
- Classes of weight categories and three classes of obesity
  - Underweight: Less than 18.5.
  - Optimum range: 18.5 to 24.9.
  - Overweight: 25 to 29.9.
  - Class I obesity: BMI 30 to <35 kg/m<sup>2</sup>.
  - Class II obesity: BMI 35 to <40 kg/m<sup>2</sup>.
  - Class III obesity: BMI 40+ kg/m<sup>2</sup>.
    - Often associated with other chronic health conditions
    - Formerly termed Morbid obesity with is an outdated label for class III obesity

Source: CDC,

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## Limitations of BMI as a Measure

- Bodybuilders and athletes,
- Higher muscle density
- Total body fat
- Possibility to have obesity at a “normal” weight.
- Average body weight
- Body fat percentage is high
- Same health risks as somebody with a higher BMI.

Source: CDC,

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## Other Methods of Measuring Obesity

- **Waist Circumference:** Measuring the circumference of the waist can help assess central obesity, which is particularly associated with health risks. A waist circumference above certain thresholds is indicative of increased abdominal fat.
- **Waist-to-Hip Ratio (WHR):** This ratio assesses the distribution of fat in the body. It involves measuring the waist circumference and dividing it by the hip circumference. Higher WHR values suggest central obesity and an increased risk of health problems.
- **Skinfold Thickness:** Skinfold thickness measurements involve using calipers to measure the thickness of subcutaneous fat at various body sites. This can provide an estimate of overall body fat percentage.



Source: www.mayoclinic.org

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## Other Methods of Measuring Obesity

- **Computed Tomography (CT) and Magnetic Resonance Imaging (MRI):** These imaging techniques can provide precise measurements of body fat distribution and visceral fat (fat around internal organs). They are often used in research and clinical settings.
- **3D Body Scanning:** Advanced 3D body scanning technology can create detailed 3D models of an individual's body, allowing for precise measurements of body fat and its distribution.
- These methods offer varying levels of accuracy and may be used in combination to provide a more comprehensive assessment of obesity and associated health risks. The choice of method often depends on the clinical context, resources available, and the specific information needed for a patient's care.



Source: www.mayoclinic.org

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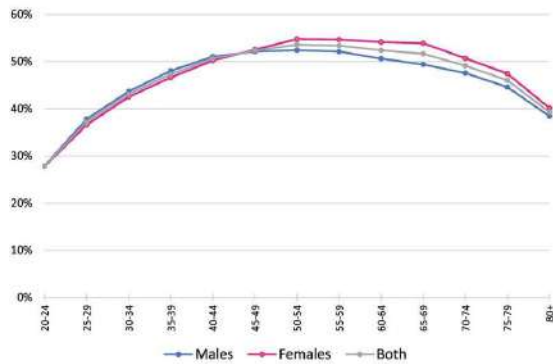


# Obesity Trends



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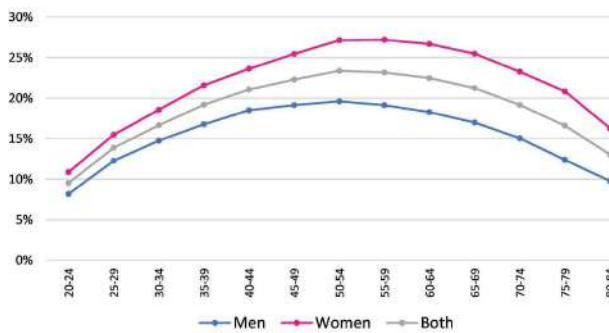
## Obesity Trends Global prevalence of overweight



Source: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9107388/>

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## Obesity Trends Global prevalence of obesity



Source: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9107388/>

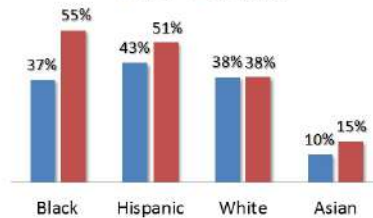
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## Adult Obesity Facts

### Obesity Percent by race/sex

aged 20 and over

Men Women



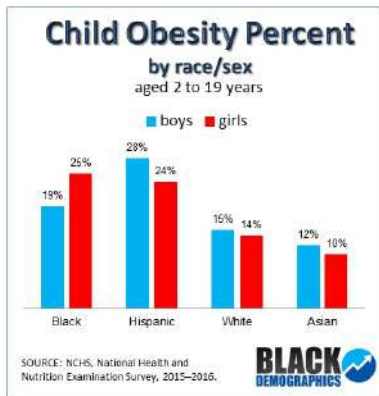
SOURCE: NCHS, National Health and Nutrition Examination Survey, 2015–2016.



Source: [blackdemographics.com](http://blackdemographics.com)

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## Adult Obesity Facts



Source: blackdemographics.com

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## Adult Obesity Facts

Obesity is a common, serious, and costly disease

- The US obesity prevalence was **41.9%** in 2017 – March 2020. (NHANES, 2021)
- From 1999 –2000 through 2017 –March 2020, US obesity prevalence increased from **30.5% to 41.9%**. During the same time, the prevalence of severe obesity increased from **4.7% to 9.2%**. (NHANES, 2021)
- Obesity-related conditions include heart disease, stroke, type 2 diabetes and certain types of cancer. These are among the leading causes of preventable, premature death.
- The estimated annual **medical cost of obesity** in the United States was nearly **\$173 billion** in 2019 dollars. Medical costs for adults who had obesity were \$1,861 higher than medical costs for people with healthy weight.

Source: CDC, Overweight & Obesity

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## Adult Obesity Facts

Obesity affects some groups more than others

- Non-Hispanic Black adults (**49.9%**) had the highest age-adjusted prevalence of obesity, followed by Hispanic adults (**45.6%**), non-Hispanic White adults (**41.4%**) and non-Hispanic Asian adults (**16.1%**).
- The obesity prevalence was 39.8% among adults aged 20 to 39 years, **44.3%** among adults aged 40 to 59 years, and **41.5%** among adults aged 60 and older.
- The association between obesity and income or educational level is complex and differs by sex and race/ethnicity.
- Overall, men and women with college degrees had lower obesity prevalence compared with those with less education.

Source: CDC, Overweight & Obesity

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## Causes of Obesity

- Fast and convenience foods
- Sugar is in everything.
- Marketing and advertising.
- Psychological factors
- Hormones
- Certain medications
- Screen culture
- Workforce changes
- Fatigue
- Neighborhood design
- Childcare trends
- Disability

Source: <https://www.cdc.gov/obesity/basics/causes.html>

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- It's Bigger Than Me created this symbol in partnership with Novo Nordisk for people living with obesity, health care providers and community partners to represent the Inclusive Obesity Care Initiative.
- This symbol was designed to give anyone a chance to share their support for people living with obesity to receive health care that is compassionate, attentive, and respectful.
- Sharing can help raise awareness and emphasize the importance of unbiased care for all people, regardless of their weight.



A Symbol for Inclusive  
Obesity Care

Source: <https://www.itsbiggerthan.com/>

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“

Obesity is a complex disease but talking to your health care provider about it shouldn't be.

”

**Queen Latifah**

ACTRESS, MUSICIAN & EXECUTIVE PRODUCER



Queen Latifah is a paid spokesperson for Novo Nordisk Inc.

Source: <https://www.itsbiggerthan.com/>

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- More than 40% of adults in the United States—that's two out of every five—are living with obesity.
- **Through science and understanding, obesity is a manageable health condition.**
- **In one survey, 66% of participants who reported a history of weight stigma experienced it from doctors.\***

\*This survey focuses on the health care experiences of adults in six countries, including the United States.

Source: <https://www.itsbiggerthan.com/>

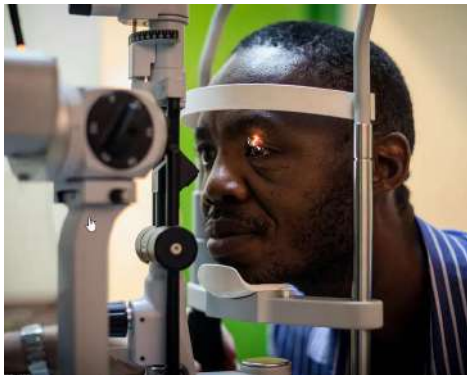
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What are our  
greatest fears  
with Diabetes?



Source: <https://www.itsbiggerthan.com/>

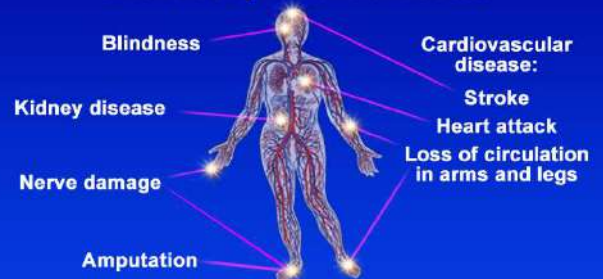
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## Hyperglycemia Can Cause Serious Long-Term Problems

### Chronic complications of diabetes



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## Diabetic Retinopathy

Early Diabetic Retinopathy

Moderate Diabetic Retinopathy

Severe Diabetic Retinopathy



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## Complications of BMI and Glaucoma

Moderate body mass index, having breakfast, avoiding late dinner, limiting alcohol intake to <2.5 units/day, and regular exercise were associated with a reduced risk of developing glaucoma in the Japanese population. These findings may be useful for promoting glaucoma prophylaxis.

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## Systemic Conditions Associated with Obesity

- Coronary and congestive heart disease
- Pre-Diabetes
- Type 2 diabetes mellitus
- Hypertension
- Stroke
- Dyslipidemia
- Osteoarthritis
- Back pain
- Kidney Disease
- Sleep apnea
- Certain types of cancers.
  - obesity is responsible for approximately 40% of endometrial cancers
  - 25% of renal cancers
  - 10% each of colonic and breast cancers
- Other obesity-associated comorbidities
- Memory and cognition, including a heightened risk of Alzheimer's disease and dementia
- Female infertility and pregnancy complications, polycystic ovary syndrome
- fatty liver disease
- Hypercoagulability disorders
- Depression secondary to social stigmatization and discrimination

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## Case #1

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## Ocular Signs and Conditions Related to Obesity

- Dry eye
- Cataracts
- Glaucoma
- Age Related Maculopathy
- Diabetic Retinopathy
- Retinal vein occlusion
- Oculomotor nerve palsy.
- Recurrent lower eyelid entropion
- Papilledema / Pseudotumor
- Floppy eyelid syndrome
- Benign intracranial hypertension (pseudotumor cerebri).

Source: CDC.

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## Limitations of BMI as a Measure

- Ethnic differences in BMI
- People of Asian descent are more likely to have health risks at a lower BMI
- Black people are more likely to have health risks at a higher BMI.

Source: CDC.

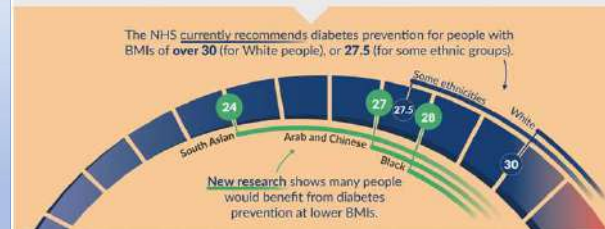
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## Ethnic Differences for Diabetes Risk and BMI

NIHR | National Institute  
for Health Research

### Are you at risk of diabetes?

If you are from a **Black, South Asian, Chinese or Arab** ethnic group, you may need to ask your GP about diabetes prevention at a lower body mass index (BMI) than currently recommended.

Source: National Institute for Health Research, <https://evidence.nihr.ac.uk/>

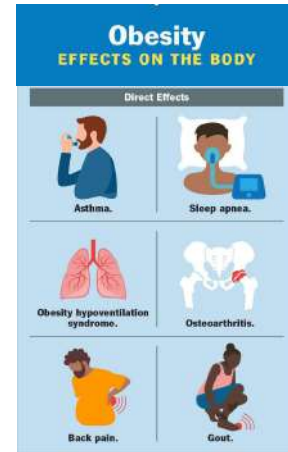
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## Ethnic Differences for Diabetes Risk and BMI

- Diabetes prevention is needed at or above a BMI of:
  - 24 in South Asian populations
  - 27 in Arab and Chinese populations
  - 28 in Black populations.
- Among Black populations, diabetes prevention is needed at BMI levels considered overweight (not obese)

Source: National Institute for Health Research, <https://evidence.nihr.ac.uk/>

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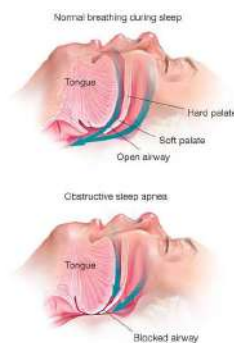
Source: Cleveland Clinic

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## Obesity & Sleep Apnea

Sleep Apnea Results in 40% Greater Risk of Glaucoma

The condition also affected nonglaucomatous eyes in terms of visual field defects, IOP and RNFL thickness.



Source: Review of Optometry March 31, 2023

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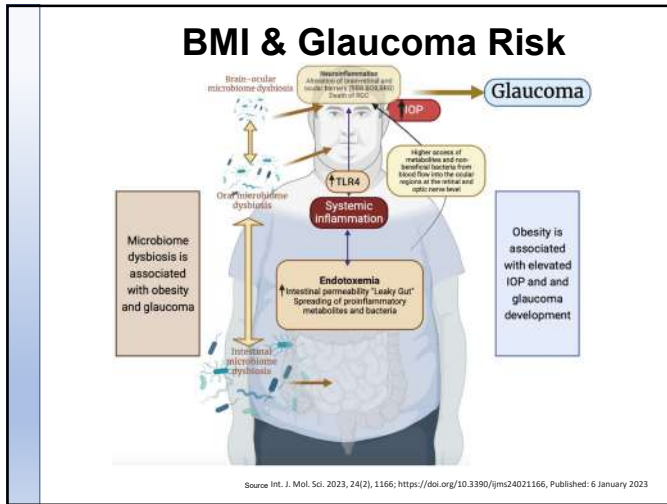
## BMI & Glaucoma Risk

Factors associated with a reduced risk of developing glaucoma in the Japanese population.

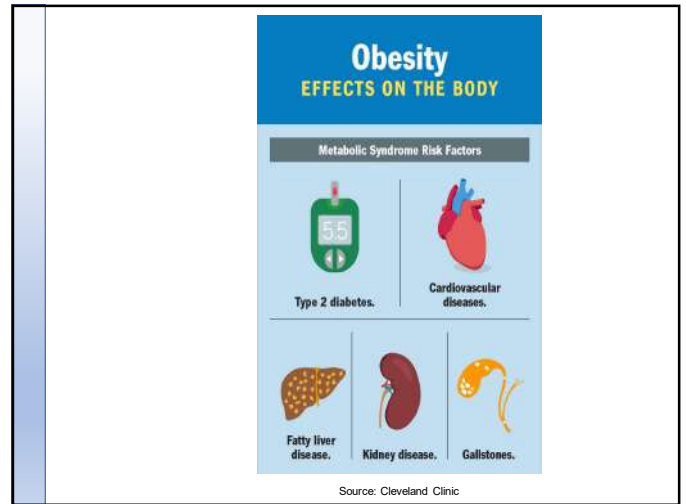
- Moderate body mass index
- Having breakfast
- Avoiding late dinner
- Limiting alcohol intake to <2.5 units/day
- Regular exercise

Source: Fujita, A., Hashimoto, Y., Matsui, H. et al. Association between lifestyle habits and glaucoma incidence: a retrospective cohort study. *Eye* (2023). <https://doi.org/10.1038/s41433-023-02535-7>

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### Definitions & Statistics

#### Pre-Diabetes

- HbA1c of 5.7 to 6.4
- May also exhibit impaired glucose tolerance (IGT) or impaired fasting glucose (IFG).

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### Diabetes Categories

#### Pre Diabetes symptoms

- *Acanthosis nigricans is a skin condition characterized by areas of dark, velvety discoloration in body folds and creases. The affected skin can become thickened*

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## Type 2 Diabetes

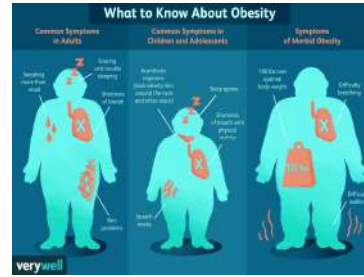
- Multifactorial condition that effects how the body handles glucose.
- About 90% of those living with Diabetes are Type 2
- In most cases can be prevented

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## Clinical Care Where Optometry Makes a Difference

### Major Eye Disease Issues

- Obesity and Hypertension

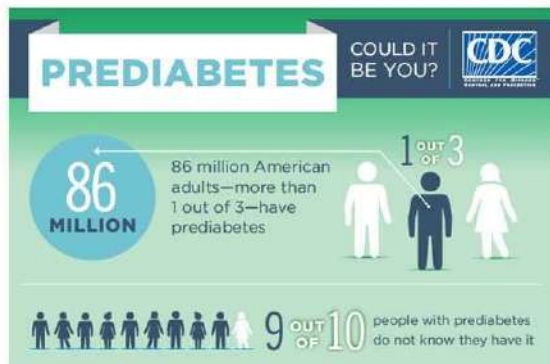


<https://www.verywellhealth.com/>

Source: Aug 9, 2021 AOA News

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## Pre-Diabetes Statistics



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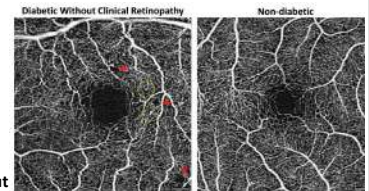
## PREDIABETES

COULD IT BE YOU?

### Retinal Signs

#### Wider Retinal Vein Caliber

- Linked to metabolic syndrome (Blue Mountains Study)
- Evidence is associated with various microvascular complications of diabetes including diabetic retinopathy and diabetic nephropathy






- **Conclusion: literature is showing isolated signs of retinopathy in those without diabetes in those under 65 years and with a family history of diabetes are at a higher future diabetes risk**

Source: <http://care.diabetesjournals.org/content/30/10/2708.full>  
<https://www.reviewofoptometry.com/article/retinal-microcirculation-changes-found-in-prediabetes>

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### Pre-Diabetes Increased Risk for:

Type 2 Diabetes






Stroke

Heart Disease

Source: aoa.org Diabetes Standard of Care

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- HbA1c of 5.7 to 6.4
- Prediabetes reflects failing islet beta-cell compensation or an underlying state of insulin resistance, often caused by excess body weight or obesity.
- Prediabetes is defined as an abnormal blood glucose level, an elevated A1c level, or an abnormal glucose tolerance test.

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### THE ROAD TO TYPE 2 DIABETES

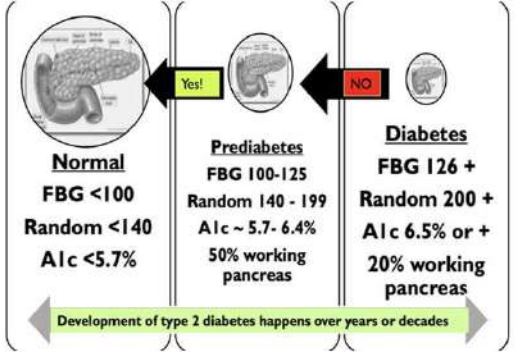
|                    | A1C TEST      | FASTING BLOOD SUGAR TEST | GLUCOSE TOLERANCE TEST |
|--------------------|---------------|--------------------------|------------------------|
| <b>DIABETES</b>    | 6.5% or above | 126 mg/dL or above       | 200 mg/dL or above     |
| <b>PREDIABETES</b> | 5.7 - 6.4%    | 100-125 mg/dL            | 140-199 mg/dL          |
| <b>NORMAL</b>      | Below 5.7%    | 99 mg/dL or below        | 140 mg/dL or below     |

Source: American Diabetes Association



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### Natural Progression of Diabetes over time



| Normal                                                             | Prediabetes                                                                                            | Diabetes                                                                                       |
|--------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| <b>FBG &lt;100</b><br><b>Random &lt;140</b><br><b>A1c &lt;5.7%</b> | <b>FBG 100-125</b><br><b>Random 140 - 199</b><br><b>A1c ~ 5.7- 6.4%</b><br><b>50% working pancreas</b> | <b>FBG 126 +</b><br><b>Random 200 +</b><br><b>A1c 6.5% or +</b><br><b>20% working pancreas</b> |

DiabetesEd.com, 2019

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## Patient Centered Care

- Referral sources for patients living with obesity
- PCP, Family Practitioner
- Dieticians
- Mental health
- Podiatry
- Always patient centered
- Patient centered care defined

## Case #1 – Obesity

51 year old African American Man  
Occupation – Truck Driver

Scheduled for bariatric surgery (gastric sleeve)

Gout  
Hypertension  
Family Hx – Diabetes / Hypertension  
Sleep apnea (CPAP)

Systemic Meds: Allopurinol, amlodipine, lisinopril/triamterene

Height 6' 1"  
Weight 412 lbs  
BMI 54.4  
In office BP 154/76 pulse 86

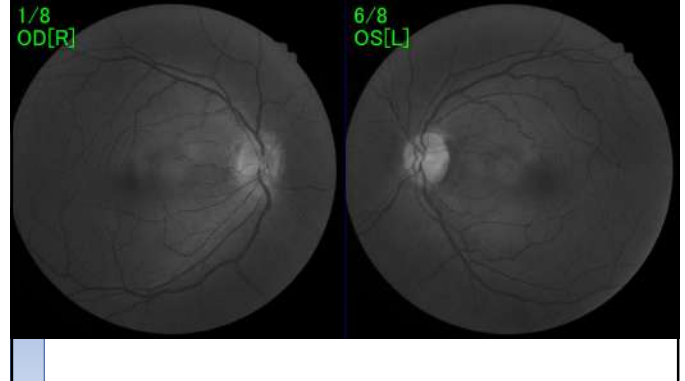
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## Case #1 – Obesity



## Case #1 – Obesity







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## CONSENSUS-BASED ACTION STATEMENT

**CONSENSUS-BASED ACTION STATEMENT:**

The initial ocular examination of a person with diabetes should include all aspects of a comprehensive eye and vision examination, with ancillary testing, as indicated to and thoroughly evaluate ocular complications of diabetes.

Source: aoa.org Diabetes Standard of Care



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## CONSENSUS-BASED ACTION STATEMENT

**EVIDENCE-BASED ACTION STATEMENT:**

**The patient's primary care physician should be informed of eye examination results following each examination, even when retinopathy is minimal or not present.**

- Evidence Statements: Written communication between the eye care provider and a patient's primary care physician has been found to be associated with improved adherence to recommendations for follow-up diabetic eye examinations.274 (Evidence Grade: B)
- Potential Benefits: Coordination of care Potential Risks/Harms: None
- Benefit and Harm Assessment: Benefits significantly outweigh harms

Source: aoa.org Diabetes Standard of Care

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## Communication Tools

|                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Instead of this...</b></p> <ul style="list-style-type: none"> <li>▪ Vulnerable groups</li> <li>▪ Marginalized groups</li> <li>▪ Hard-to-reach communities</li> <li>▪ Underserved communities</li> <li>▪ Underprivileged communities</li> <li>▪ Disadvantaged groups</li> <li>▪ High-risk groups</li> <li>▪ At-risk groups</li> <li>▪ High-burden groups</li> <li>▪ The needy</li> </ul> | <p><b>Try this...</b></p> <ul style="list-style-type: none"> <li>•Groups that have been economically/socially marginalized</li> <li>•Groups that have been marginalized</li> <li>•Communities that are underserved by/with limited access to [specific service/resource]</li> <li>•Under-resourced communities with reference to specific recourses, ie clean water, convenient grocery stores</li> <li>•People who are not equitably served by programs, initiatives, infrastructure, or systems.</li> <li>•Groups experiencing disadvantage because of various reasons</li> <li>•Groups placed at increased risk/put at increased risk of various outcomes</li> <li>•Groups with higher risk of various outcomes</li> <li>•People living with increased risk of various outcomes because of various reasons.</li> </ul> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Source: CDC, Gateway to Health Communication

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## Avoid dehumanizing language. Use person-first language instead

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Instead of this...</b></p> <ul style="list-style-type: none"> <li>•Diabetics</li> <li>•Diabetes patients</li> <li>•The diabetes population</li> <li>•The obese or the morbidly obese</li> <li>•The homeless</li> <li>•Disabled person</li> <li>•Handicapped</li> <li>•Inmates</li> <li>•Victims of abuse</li> <li>•Cases (when referring to people affected by a disease or condition) or subjects (when referring to people participating in a study)</li> <li>•Individuals</li> <li>•Referring to people only as acronyms (for example, MSM for 'men who have sex with men')</li> </ul> | <p><b>Try this...</b></p> <ul style="list-style-type: none"> <li>•People/persons with [disease]</li> <li>•Patients with [disease] (if referring to people who are receiving healthcare)</li> <li>•People experiencing [health outcome or life circumstance]</li> <li>•People with obesity; people with severe obesity</li> <li>•Patients or persons with COVID-19</li> <li>•Reported cases of [disease/condition] (when referring to case reports, not people)</li> <li>•Study participants</li> <li>•People who are experiencing homelessness</li> <li>•People who are experiencing [condition or disability type]</li> <li>•Person with mobility disability</li> <li>•Person with vision impairments</li> <li>•People who are incarcerated</li> <li>•Survivors [of abuse, cancer, violence]</li> </ul> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Source: CDC, Gateway to Health Communication

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**Avoid saying target, tackle, combat, or other terms with violent connotation when referring to people, groups, or communities.**

#### Instead of this...

- Target communities for interventions
- Target population
- Tackle issues within the community
- Aimed at communities
- Combat or fight against [disease]
- War against [disease]

#### Try this...

- Engage/prioritize/collaborate with/serve [population of focus]
- Population of focus
- Consider the needs of/Tailor to the needs of [population of focus]
- Communities/populations of focus
- Intended audience
- Eliminate/eradicate [issue/disease]
- Prevent/control spread of [disease]

Source: CDC, Gateway to Health Communication

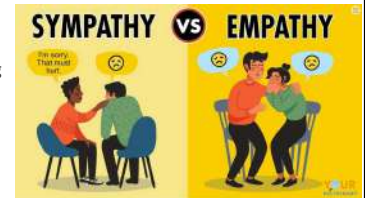
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## Cultural competencies for optometric care

### The Power of Empathy

(source:Edutopia.org)

- It's different from having sympathy for someone, which means to look at their suffering from the outside and feel sorry or sad for them.
- Empathy is feeling someone else's pain or seeing through their eyes.
- It's a precursor to compassion, which is empathy in action—a commitment to doing something that relieves someone else's suffering.



<https://www.edutopia.org/article/power-empathy>

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## Obesity and Eye Diseases

### Weight Loss After Bariatric Surgery Impact the Ocular Parameters?

- Bariatric surgery positively impacts retinochoroidal microcirculation. The arterial perfusion and vascular density improve, venules constrict, and the arteriole-to-venule ratio increases.
- Weight loss positively correlates with intraocular pressure decrease
- The impact of postoperative weight loss on the choroidal thickness (CT) and the retinal nerve fiber layer (RNFL) is still unclear.

Source: Obes Surg 2023 Jun;33(6):1916-1927. doi: 10.1007/s11695-023-06607-1. Epub 2023 Apr 27

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## Cultural competencies for optometric care

### The Power of Listening

(source: forbes.com)

- Elle Kaplan defined effective listening as “giving your complete, intentional focus to what someone says, rather than what their words literally mean.”
- Effective listening requires active listening, which the University of the People defines as “a soft skill that directs the focus from what’s in your head to the words coming from the outside.”
- By being able to focus on what another person is saying, you can understand needs and information more accurately.
- Impactful active listening is all about understanding the context in which those words are shared, along with other verbal and nonverbal cues, such as voice inflection, tone, facial expressions and body language.



<https://www.forbes.com/sites/forbescoachescouncil/2020/08/17/the-power-of-listening/>

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## Obesity and Eye Diseases

Case #2

Source: <https://www.mountsinai.org/about/newsroom/2022/blinding-eye-disease-is-strongly-associated-with-heart-disease-and-stroke>


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## Obesity and Eye Diseases

Pseudo tumor case

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### Office Infrastructure & Instrumentation



Quality Exam Chair with power tilt

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## Avoid unintentional blaming.

|                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                             |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Instead of this...</b></p> <ul style="list-style-type: none"> <li>•People who refuse [vaccination/specific behavior]</li> <li>•Workers who do not use PPE</li> <li>•People who do not seek healthcare</li> </ul> | <p><b>Try this...</b></p> <ul style="list-style-type: none"> <li>•People who are unvaccinated</li> <li>•People who have yet to receive/do [vaccination/specific behavior]</li> <li>•People with limited access to [specific service/resource]</li> <li>•Workers under-resourced with [specific service/resource]</li> </ul> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Source: CDC, Gateway to Health Communication

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Office Infrastructure & Instrumentation



Handheld Tonometer(s)



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Office Infrastructure & Instrumentation



Virtual Reality Visual Field Testing

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Office Infrastructure & Instrumentation



Wheelchair glide(s)

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Office Infrastructure & Instrumentation



Quality Slit lamp with a wide base

Source: Marco Instruments

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Office Infrastructure & Instrumentation



Virtual Reality Ancillary Testing

The image shows a VR headset and a hand controller. Surrounding them is a diagram with eye icons and labels for various visual tests: Contrast Sensitivity, Color Vision, Visual Acuity, Pupillometry, Visual Field, and Extraocular Motility.

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Office Infrastructure & Instrumentation



Extra Large Blood Pressure Cup

The image displays a digital blood pressure monitor and a large, dark grey cuff. The cuff has a diagram of a hand and arm with labels: 'INDEX' with an upward arrow, '2-3 cm (0.8"-1.2")', and 'Main Arteries'. A label on the cuff reads 'ELEARR Adult Cuff 22-52cm 9"-20.5"'. The monitor shows a reading of 112/78.

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Office Infrastructure & Instrumentation



Extra Wide Wheel Chair

The image shows a silver metal wheelchair with a black seat and backrest, designed for extra-wide users.

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Reception Room and Dispensing Chairs



Weight Capacity: 750      Weight Capacity: 500

Source: <https://www.huskyoffice.com/>

The image shows two chairs: a light-colored upholstered chair with a dark frame and armrests, and a dark blue upholstered armchair.

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Reception Room and Dispensing Chairs



Weight Capacity: 500                      Weight Capacity: 500

Source: <https://www.huskyoffice.com/>

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**Do you have any questions?**

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Change is the essential process of all existence.

-Spock

Questions?



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**On behalf of Vision Expo, we sincerely thank you for being with us this year.**

**Vision Expo Has Gone Green!**

We have eliminated all paper session evaluation forms. Please be sure to complete your electronic session evaluations online when you login to request your CE Letter for each course you attended! Your feedback is important to us as our Education Planning Committee considers content and speakers for future meetings to provide you with the best education possible.



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