

Diabetic Retinopathy

Peer Support Facilitator Guide



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INDIAN
INSTITUTE OF
PUBLIC HEALTH
HYDERABAD

Diabetic Retinopathy

Peer Support Facilitator Guide

Indian Institute of Public Health – Hyderabad

Plot # 1, Rd Number 44

Kavuri Hills, Madhapur

Hyderabad, Telangana 500033

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Plot # 1, Rd Number 44
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Hyderabad, Telangana 500033
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Preface

This guide is designed for peer group facilitators who work in the field of diabetes and diabetic retinopathy (DR).

In most health facilities, diabetes control is part of general health-care delivery. Improving management of diabetes associated complications is therefore part of improving health-care services. The facilitator guide consists of two modules.

The first module explains steps to plan and execute a peer group meeting, the qualities of a good facilitator and methods to conduct a productive meeting. The second module focusses on the contents that could be included in a peer group meeting for DR. A brief introduction to type 1 and 2 diabetes, DR and its different stages are presented in this module. Additionally, other topics like diet and exercise that are essential to the management of diabetes are also included.

Pictorial descriptions of different stages of DR and examples of activities that can help in facilitating the session are included in the Appendices section.

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Module 1

- INTRODUCTION
- PLANNING FOR A PEER SUPPORT GROUP MEETING
- DESIRED CHARACTERISTICS OF A GOOD FACILITATOR
- INTERACTION SESSION: PREPARATION AND LOGISTICS CHECKLIST
- GROUP DYNAMICS
- TRAINING AIDS FOR FACILITATORS
- CHECKLIST OF DO'S & DON'TS IN ORGANISING A PEER GROUP SESSION

Introduction



A peer group session in progress. Chennai, India.

The word “peer” comes from the Latin word “par” which means equal.¹ A peer is someone at your own level. A group of people sharing similar qualities constitute a peer group. In our case, it is people with diabetes. “Peer groups provide a platform for people with diabetes to impart knowledge and healthy practices to others with diabetes and facilitate behavior modification. It also helps those with little control of their diabetes learn about different tools and practices, while also providing them with a support system of equals. Peer support occurs when people provide knowledge, experience, and emotional, social or practical help to each other. A peer facilitator helps others work through their problems by offering emotional support as well as guidance regarding different situations.”² Peer support can take many forms – phone calls, text messaging, group meetings, home visits, going for walks together, or even shopping together for groceries.

PURPOSE OF PEER SUPPORT GROUP MEETINGS

A peer support group meeting provides an opportunity for peers to come together to:

- Offer each other practical advice and suggestions on living with diabetes – such as help maintaining diet and exercise, ensuring that medication is taken correctly and on time and compliance with screening procedures for complications.

1. <https://www.vocabulary.com/dictionary/peer> (accessed 1 July 2017)

2. <http://oureverydaylife.com>. What Is a Peer Facilitator? <https://oureverydaylife.com/peer-facilitator-7799226.html> (accessed 5 July 2017)

- Use peers to combat social and emotional barriers.
- Improve access to health care professionals by providing encouragement to those around them to use clinical resources where required.
- Share information on available health care facilities in the vicinity.
- Provide long term support, ensure follow up, and help peers remain proactive towards diabetes.³

BENEFITS OF PEER SUPPORT GROUP MEETINGS

Peer group activity for children and adolescents with diabetes is very beneficial. It offers a unique opportunity for young people with diabetes to:

- Develop confidence in social and physical activities.
- Improve their knowledge of diabetes and self-management skills, e.g. injection techniques, blood glucose monitoring, healthy food choices and adjusting insulin to balance food and physical activity.
- Emotionally adjust.
- Seek support from parents, teachers and carers.

These skills will then help the child gain a sense of control and overcome feelings of isolation, stigma and pessimism.

Peer group activities give children and young people a chance to:

- meet others of their own age
- feel less isolated
- learn more about managing their diabetes, and
- have fun in a safe environment.

Such activities help children understand that they are not alone and that many others face similar challenges.

3. Peers for Progress. What is Peer Support? <http://peersforprogress.org/learn-about-peer-support/what-is-peer-support/> (accessed 5 July 2017)

Planning for a peer support group meeting



Planning with various diabetes professionals, India.

PLANNING THE MEETING

The following factors must be taken into account while planning a peer support group meeting:

DECIDE ON THE TIME AND LOCATION

When and where do you want the meeting?

- Plan a time of day that is convenient for the participants and sensitive to their life circumstances.
- Groups should be conducted in locations that are convenient and comfortable for participants, are quiet, and have some degree of privacy (village schools during holidays, temples or panchayat offices, community centres, etc). The venue should be chosen well in advance since it takes time to organise, and should be a place that appropriately accommodates the participants.

- Depending on the community, it may be necessary (and will reflect a greater degree of cultural sensitivity) if the group met in a public space like a community centre.
- Set a date, reserve a space, and arrange for fun and games and food and drink.⁴

SELECT THE PARTICIPANTS AND TOPIC

Who are the audience?

- Orientation will be held for several different types of groups – based on age, literacy level, gender, etc.
- While planning, identify the most suitable individuals to participate in each group.
- When recruiting, be sure that participants fit the criteria established for inclusion in a particular group.

What is the topic you want to discuss?

Each peer group session should have clearly defined objectives so the participants have a good understanding of what to expect. For the initial one or two sessions, the facilitator will decide on the topic(s) to be discussed at the meeting. Once the group understands the value of such meetings, the participants should be encouraged to select the topics for subsequent meetings. Involving the participants in decision making builds a sense of ownership.

Topics for discussion listed below:

- Diabetes (type 1 and type 2)
- Diabetes-related complications and management
- Eye screening for DR
- Screening for other complications
- Medications
- Healthy food habits
- Physical activity
- Lifestyle modification
- Cost of care
- Emergency management and how the group members can support each other
- How to cope with stress and depression

How do you plan to inform the target audience?

- Put up posters at community centres, local health centres and temples. Distribute flyers, make announcements by SMS and spread the word in the community.
- Are any experts being invited to speak? (Such experts may include medical professionals, dieticians, counsellors, physical fitness trainers and any other committed individuals with an interest in diabetes.)

4. Focus Group Guidelines. SWITCH Project. https://www.polisnetwork.eu/uploads/Modules/PublicDocuments/switch_focus-group-guidelines.pdf (accessed 24 July, 2017)

- Secure a diabetes health professional, a dietician, counsellor or physical fitness trainer to work with you at some level of partnership (as guest speaker, supportive guide, consultant, etc.) and confirm their availability.
- In case of a younger audience, interesting activities can be included in the meeting (a diabetes quiz competition, informative and motivational videos and other games such as musical chairs).

Before the meeting

- Register the interested participants and check if they are registered at the NCD clinics

Ideally, a peer group should not be larger than 10-15 people. Peer group sessions should last anywhere between 50-90 minutes, depending on the topic and specific needs of some members of the group.

GUIDELINES FOR FACILITATORS

A peer group meeting needs a well-informed facilitator whose role is to assist the group in achieving planned objectives by arranging necessary resources, and encouraging and supporting the group members.⁵ “Well-informed” means possessing sound knowledge and good understanding of the facts. Well-informed peer supporters can be facilitators of the meeting as they know the people they work with and are thus in the best position to develop their groups. Initially, to facilitate the interaction, the facilitator should be from outside the group, but over time this role should be taken over by a member within the group (usually a peer group leader (PL)).

A good facilitator best supports by:

- Actively listening to what a peer needs and wants with respect to their physical health and wellbeing.
- Intentionally and meaningfully sharing their knowledge, skills, experiences and perspectives.
- Developing competency in: encouraging peer self-care, strengthening peer support and promoting peer self-advocacy.
- Being a role model by attending to their own physical health and well-being, “walking the talk” by speaking up for themselves, strengthening their personal support and practising self-care.
- Being conversant with techniques like role play to foster bonding among members.

The two core components of a peer group meeting are sharing information and exchanging support⁵. Each peer group will develop their own methodology of conducting meetings. The facilitator can follow any of the following methods that is conducive to the group:

1. Predetermined schedule of topics that are shared and decided upon by the group over the course of several weeks/months.

5. Diabetes and Mental Health Peer Support Project. A Guide to Facilitating Diabetes and Mental Health Peer Support Groups <http://www.diabetesandmentalhealth.ca/wordpress/wp-content/uploads/2012/09/DMHPS-Facilitating-Diabetes-and-Mental-Health-Peer-Support-Groups.pdf> (accessed 10 July 2017)

2. Formal information sharing followed by informal interaction.
3. Informal exchange of support (sharing experiences and perspectives).

The approach that is finally followed is determined by the peer group. The facilitator should be open to adapt the format and content of the meetings which are considered best for the group. The peer support facilitator should develop and implement activities that are more person centric than programme centric. The facilitator should build strategies that can keep the group engaged, encourage enrolment of new members and also boost participation of other interested peers.

DURING THE SESSION

- Welcome participants.
- Establish a comfortable environment: a mutually agreed-upon set of group rules and expectations.
- Orient participants to the objectives, intent and the format of the meeting.
- Provide a warm-up/introductory exercise, an activity that may help the group open up and begin conversation – often a discussion on a “lighter” subject or something that helps the group get more comfortable with one another.
- Deliver the main theme of the meeting. This could be a video to illustrate the theme of the meeting, a PPT to introduce an aspect of diabetes, or an activity to demonstrate self-care. Introduce any guest speakers and let them make a presentation on the chosen area. If no formal presentation is planned, introduce the discussion topic for the session.
- Facilitate discussion after presentations.
- Seek opportunities to promote self-advocacy, strengthen support, and encourage self-care.
- Request participants for feedback.
- Remind participants about the next session.

AFTER EACH SESSION

- Provide individual peer support as needed.
- Reflect on the session experience: lessons learned, modifications or refinements to be made, and feedback from participants.⁶

DESIRED CHARACTERISTICS OF A GOOD FACILITATOR ⁶



A facilitator should have a good understanding of the topic, ability to answer questions and good leadership skills.

S.No	Desired features	Skills expected	Roles and responsibilities
1	A facilitator should have a good understanding of the topic, ability to answer questions and good leadership skills.	<ul style="list-style-type: none"> • Regularly reading up on well researched material • Periodically updating skills • Ability to articulate difficult emotions or issues • Ability to bring people together for collective action 	<ul style="list-style-type: none"> • Disseminating newly available information to participants • Speaking clearly about the topic in meetings • Showing sensitivity towards participants' needs
2	Facilitators need to explain the purpose of the group, what is expected of participants, assure the participants of anonymity and confidentiality.	<ul style="list-style-type: none"> • Building a rapport with the participants • Earning their respect and trust • Good speaking skills • Encouraging reflection on themes, and clarifying doubts 	Keep participants focused, engaged, attentive and interested
3	A facilitator's role is to guide the conversation by making sure all opinions are heard, keeping the group focused and preventing the participants from wandering away from the topic.	<ul style="list-style-type: none"> • Bringing focus back when the conversation gets diverted • Asking probing/ follow-up questions • Managing conflict 	<ul style="list-style-type: none"> • Monitor and use limited time effectively and efficiently. • Use prompts and probes to stimulate discussion. • Ensure all topics are covered

6. National School Boards Association. Organizing and Facilitating Focus Groups. https://cdn-files.nsba.org/s3fs-public/05_PET_FocusGroups_Handbook.pdf?cVFz.heuGUiKZnO.caQz8Qjftx7AV9Fk (accessed 10 July 2018).

4	<p>The facilitator should have a clear goal in mind for the discussion. A structured/ semi-structured set of questions is useful to guide the conversation and reach the intended goal.</p>	<ul style="list-style-type: none"> • Understanding and using non-verbal cues (body language) • Good listening skills • Good observation skills 	<ul style="list-style-type: none"> • Use prompts and probes to stimulate discussion • Ensure all topics are covered • Politely enforce ground rules.
5	<p>Facilitators need to be sensitive to participants' conditions and circumstances.</p>	<ul style="list-style-type: none"> • Encourage participation when someone is reluctant to speak up • Sensitive to gender and cultural issues • Sensitive to differences in power among and within groups 	<ul style="list-style-type: none"> • Ensure participants are from similar socio-economic backgrounds to avoid any conflict. • Avoid bringing up any issue in case a participant wishes so • Gently encourage participants to speak, in cases where they are hesitant.

INTERACTION SESSION: PREPARATION AND LOGISTICS CHECKLIST⁷

BEFORE THE SESSION

- Identify when the interactive session will take place.
- Identify where the interaction session will take place, and reserve and prepare the space.
- Identify participants, inform them, and arrange for transportation, food, and lodging.
- Read all interaction session materials thoroughly so that you are familiar with session content and activities.
- If you have questions about the session content, get them answered.
- Complete all preparations for session activities (making photocopies, contacting guest speakers, gathering supplies for demonstrations, etc.).
- Gather all supplies needed for the training (flip chart paper, tape, markers, supplies needed for demonstrations, AV equipment, etc.).
- If you are working with another facilitator, decide ahead of time who will handle which parts of the session, and divide the work accordingly.

AT THE START OF THE TRAINING

- Make sure that all session materials are ready and the participants are comfortably seated.
- Welcome participants as they arrive.
- Welcome the whole group formally when everyone has arrived.
- Ask participants to introduce themselves.
- Use an icebreaker to put participants at ease.

7. Partners in Health. Training of Trainers: A manual for training facilitators in participatory teaching techniques. https://www.pih.org/sites/default/files/2017-07/TrainingOfTrainers_English.pdf (accessed 10 July 2018).

GROUP DYNAMICS⁸

What could go wrong	How to resolve it
<p>If someone is dominating the conversation? If someone is doing a lot of the talking, this may prevent others from contributing their thoughts, and limits the usefulness of the sessions.</p>	<ul style="list-style-type: none"> • It is important to have people say things in their own words as much as possible and if someone is dominating the conversation, respectfully acknowledge their contribution, and thank them, saying something like, “I really appreciate your comments.” • Then make direct eye contact with other people and say something like, “I’m very interested in hearing how other people are feeling about this issue.”
<p>If people are feeling uncomfortable about participating? This typically occurs at the beginning of a training session.</p>	<ul style="list-style-type: none"> • Start with an icebreaker. • The facilitator should be able to set a comfortable tone and put people at ease at the beginning. • Talk about easier topics, things that you think participants may be more familiar with or comfortable talking about. • The participants will then begin to feel more comfortable talking in a group setting.
<p>If people are having conversations on the side among themselves? Conversations among participants can disrupt the training session by making the other participants feel uncomfortable, making it hard for people to hear what others are saying, and making it harder for the facilitator to focus on what is being said.</p>	<ul style="list-style-type: none"> • The best way to handle this situation is to address it before the training session begins, when you tell the participants about ground rules. • Stress that it is very important not to have conversations on the side because it interferes with an individual’s full participation in the training. • Do not stop the conversation abruptly but respectfully do remind people of the ground rules and ask that people finish their conversations and re-join the discussion that is taking place. • Such conversations may also signal that it is time to take a break, and you may suggest a 5-10 minute break so that people can use the restroom or stretch a little.

8. OMNI. Toolkit for Conducting Focus Groups . <http://partnerplanact.org/wp-content/uploads/2017/04/focusgrouptoolkit.pdf> (accessed 23 July2017)

TRAINING AIDS FOR FACILITATORS

Type and features of training aid	Advantages	Disadvantages
<p>Flip charts are a bunch or series of large sheets of paper attached at the top and hung on a supporting stand. Each page can be flipped to showcase an aspect or topic.</p>	<ul style="list-style-type: none"> • Each sheet of paper will carry a series of related messages or images in sequence. • Most important points of specific theme will be presented. 	<ul style="list-style-type: none"> • Requires a person to flip the charts when presenter is explaining. • Resource intensive and may not be useful for large audiences.
<p>Flash cards are a series of pictured paper cards that are shown in a sequence. One can prepare them based on the need or can also buy commercially available cards.</p>	<ul style="list-style-type: none"> • A good way to introduce a new topic or review one • Great tool to improve cognitive functioning of recognition and recall of participants. • Effective as a supplementary aid while using other material. 	<ul style="list-style-type: none"> • Not useful for large audiences. • Preparing the cards is a time-consuming process.
<p>A poster is a large sheet of paper that is usually hung on walls. Posters contain either text/attention-capturing graphic elements or both.</p>	<ul style="list-style-type: none"> • Posters convey messages quickly. • Good posters are self-explanatory and can be highly motivational tools. • Can be used several times 	<ul style="list-style-type: none"> • Once made, changes to a poster cannot be made. • A poster should always be attractive to win the attention of the audience. • Content selection is not easy and the messages need to be short and crisp.
<p>Role play is a very powerful interactive training tool.</p>	<ul style="list-style-type: none"> • Develops the social skills such as cooperation, coordination, punctuality, etc. • Helps to develop skills to stay prepared for unfamiliar and difficult situations 	<ul style="list-style-type: none"> • Chances of selective participation from the group as some of them maybe shy. • Enthusiastic participants can deviate from the topic
<p>Demonstration teaches by explanation and exhibition. It is a performance done to show a process or activity to others.</p>	<ul style="list-style-type: none"> • It gives a better opportunity for observational learning. • It clarifies the underlying principles by demonstrating the 'why' or 'how' of the activity. • It correlates theory with practice and engages participant's attention and concentration. 	

CHECKLIST OF DO'S & DON'TS IN ORGANISING A PEER GROUP SESSION⁹

The Do's' & Don'ts to be kept in mind by the facilitator during any session.

Do's

- Maintain good eye contact.
- Prepare in advance.
- Use visual aids and position them so that everyone can see them clearly.
- Speak clearly and modulate voice depending on the acoustics of the room.
- Involve participants and encourage opinions, perspectives, feedback and questions.
- Summarise and recap at the end of each session.
- Transition smoothly from one topic to the next.
- Encourage participation.
- Write clearly.
- Use time efficiently.
- Avoid distracting behaviour.
- Be sensitive to participants' body language.
- Provide clear instructions and check that they are understood.
- Maintain continuous evaluation.

DON'TS

- Talk to a flip chart or screen.
- Block the visual aids.
- Ignore participants' comments and feedback (verbal and non-verbal).
- Shout, demean or ridicule participants' ideas, opinions or feedback

9. Islamic Republic of Afghanistan, Ministry of Rural Rehabilitation and Development (MRRD). Training of Trainers (ToT) Manual. <http://mrrd.gov.af/Content/files/TOT%20Manual%2C%20SPD-%20Pdf.pdf> (accessed 20 July, 2017)

Module 2

- Content for facilitator to conduct a peer group session
- Sample session
- Role playing scenarios
- Appendices

Content for facilitator to conduct a peer group session

Note: Talk about diabetes, related complications and management with emphasis on DR.

The facilitator can either invite a clinical expert, or if well informed, can become the lead speaker and share the knowledge with the group. It can be done as a PPT or as a talk on diabetes.

(Ideas for PPT appended)

If the facilitator decides to give a talk, the following section covers basic details on diabetes and DR.

BASICS OF DIABETES MELLITUS

- Usually referred to as diabetes.
- It is a chronic disease.
- Diabetes affects how your body uses blood sugar (glucose).
- People with diabetes have too much glucose in their blood.

TYPE 1 DIABETES

- Can develop at any age, normally during childhood or adolescence.
- It is an autoimmune disorder, occurring when an individual's immune system destroys its own insulin-producing cells in the pancreas.
- With little to no insulin made, sugar builds up in the bloodstream and cannot be transported into the body's cells.

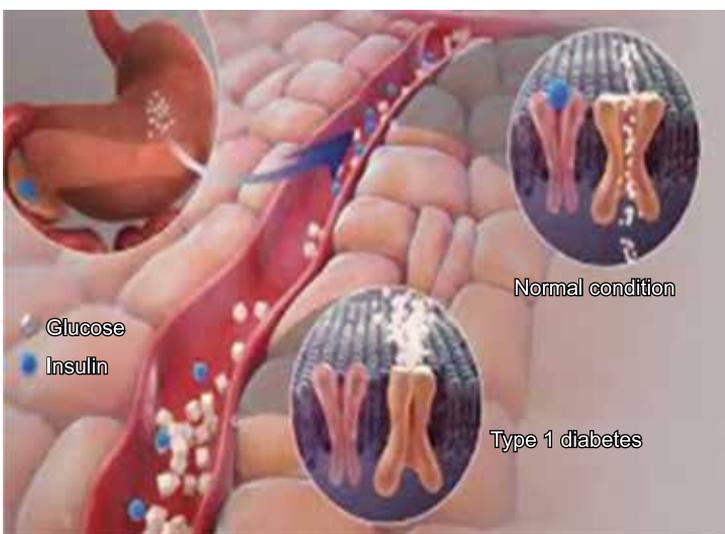


Figure 1. What happens in type 1 diabetes

- The exact cause of type 1 diabetes is unknown, but genetic and environmental factors are thought to play a role.¹

TYPE 2 DIABETES

- Over time, cells become resistant to insulin.
- An individual's pancreas is not able to make a sufficient amount of insulin to overcome the resistance.
- The cells in the body cannot take in the glucose, and therefore, it builds up in the bloodstream.
- The exact causes of this is unknown, but genetic and environmental factors play a role¹.
- Obesity and being overweight are both linked to a higher chance of developing type 2 diabetes.

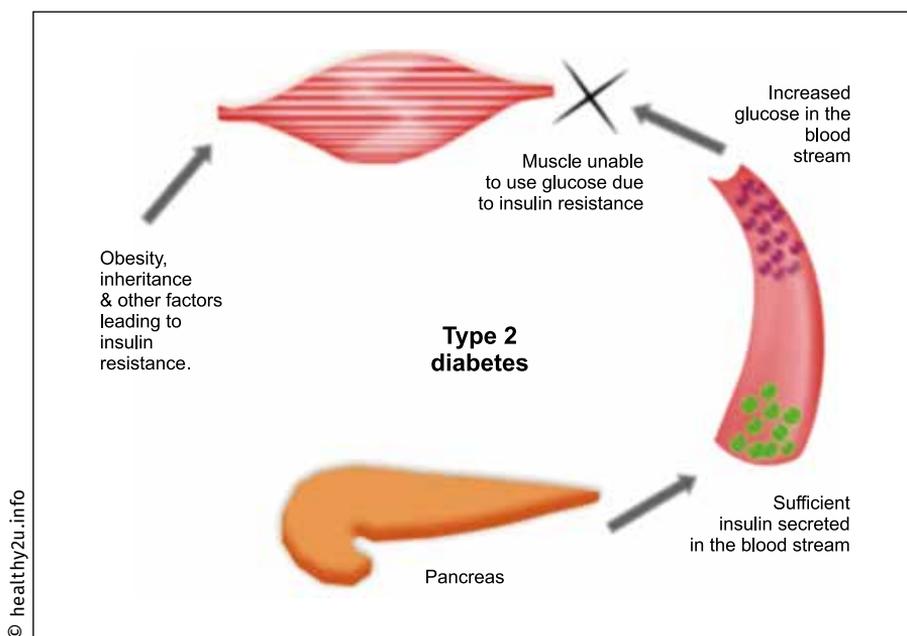
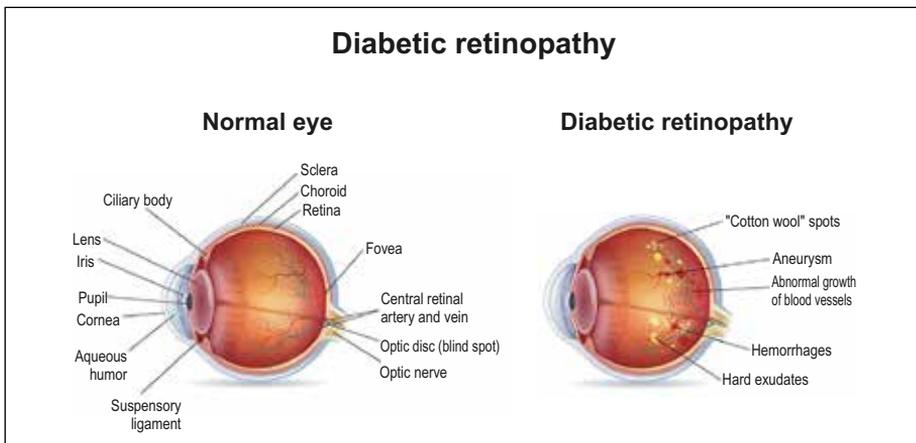


Figure 2. What happens in Type 2 diabetes

GESTATIONAL DIABETES

- Can only happen during pregnancy.
- The hormones the placenta produces during pregnancy can make your cells resistant to insulin.
- If your pancreas cannot produce enough extra insulin to overcome the resistance, the glucose stays in the blood and causes Gestational Diabetes.¹
- Persons diagnosed with diabetes, irrespective of the type, should be informed of hypoglycaemic attack/coma and how to recognise and manage the same.

1. Type 1 Diabetes. <https://www.mayoclinic.org/diseases-conditions/type-1-diabetes/symptoms-causes/syc-20353011> (accessed 15 July, 2017)



© <https://perfect2020.com/diabetes-and-the-eye/>

Figure 3. A normal eye and an eye affected by diabetic retinopathy.

WHAT IS DIABETIC RETINOPATHY?

- A complication of diabetes in which there is ongoing damage to the small blood vessels of the retina.
- Can lead to blindness
- Rarely has symptoms in the early stages
- Caused by long-term diabetes
- Results in permanent damage to the blood vessels in the retina (back of the eye)²

DIABETIC RETINOPATHY STAGES

NON-PROLIFERATIVE (NPDR)

- Mild NPDR (Stage 1): Small balloon-like swellings called micro aneurysms appear in the tiny blood vessels of the retina. These micro aneurysms may leak fluid into the retina.
- Moderate NPDR (Stage 2): As the disease progresses to Stage 2, retinal blood vessels may swell and distort and they may lose their ability to transport blood. Both conditions cause characteristic changes to the appearance of the retina and may contribute to Diabetic Macular Oedema (DME). DME is the swelling of the retina near the macula.

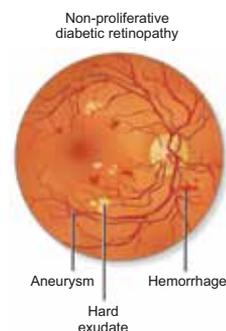


Figure 4
Illustration of an eye with NPDR. Aneurysm, hemorrhages and hard exudates can be seen.

© <https://image.slidesharecdn.com/biomarkersofdiabeticretinopathy-140807031625-philpapp02/95/biomarkers-of-diabetic-retinopathy-8-638.jpg?cb=1407381421>

2. Vislisel, J., & Oetting, T. Diabetic Retinopathy: From One Medical Student to Another. <http://webeye.ophth.uiowa.edu/eyeforum/tutorials/Diabetic-Retinopathy-Med-Students/Classification.htm> (accessed 15 July 2017).

- Severe NPDR (Stage 3): Many of the retinal blood vessels are blocked, depriving blood supply to areas of the retina. Areas with deprived blood supply secrete growth factors that signal the retina to grow new blood vessels.

PROLIFERATIVE (PDR)

- PDR (Stage 4) : At this advanced stage, growth factors secreted by the retina lead to proliferation of new blood vessels, which grow along the inside surface of the retina and into the vitreous gel, the fluid that fills the eye. The new vessels are very fragile and bleed very easily. “Accompanying scar tissue can contract and cause retinal detachment—the pulling away of the retina from underlying tissue, like wallpaper peeling away from a wall. Retinal detachment can lead to permanent vision loss”.³

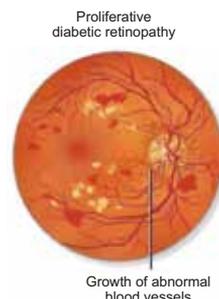
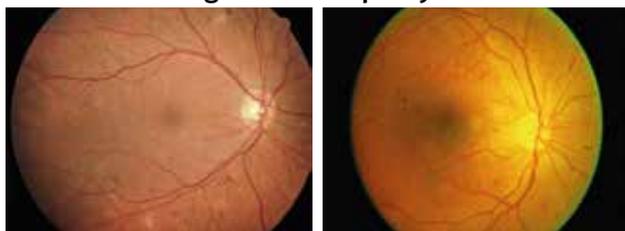


Figure. 4 Illustration of an eye with PDR. Abnormal blood vessels can be seen.

WHO CAN DEVELOP DR?

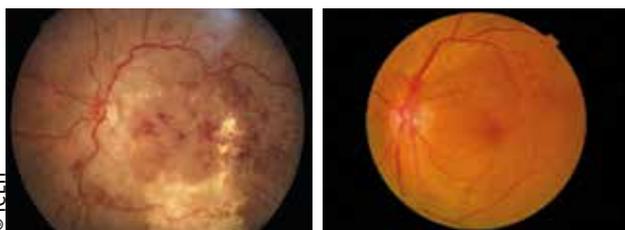
- Patients with long-term diabetes are twice as likely as individuals without diabetes to develop eye problems.
- Eight out of 10 people who have had type 1 diabetes for over 15 years are likely to develop DR during their life.
- Individuals that do not control their diabetes (type 1 and type 2), hypertension, and lipids are more likely to develop DR.
- Individuals with a prominent family history of DR (mainly in their siblings and/or parents) are more likely to develop DR.¹
- Pregnant women are also at risk.

Stages of retinopathy



Mild NPDR

Moderate NPDR



Severe NPDR

PDR

Figure 5. Stages of DR.

3. Facts About Diabetic Eye Disease. National Eye Institute. <https://nei.nih.gov/health/diabetic/retinopathy>. (Accessed 15 July, 2017)



Normal



Defective vision in PDR with vitreous hemorrhage

© Guntur vegetable market
Wikimedia Commons, CC BY-SA 3.0

Figure 6. Defective vision with PDR.

DETECTING DR

- A retinal examination can be done after dilating the eyes.
- This examination must be done yearly by a trained ophthalmologist.
- Type 1 diabetic patients
 - Retinal examination in type 1 diabetes patients should be done within 3–5 years after diagnosis.
 - Retinal examination should be continued every year thereafter.¹
 - Diabetes screening should begin upon diagnosis of type 2 diabetes.
- Advanced non-mydratiac fundus cameras are available to diagnose DR that does not require dilating the pupil. This type of screening can be performed by paramedical staff trained in taking the fundus photographs.

Life style modification is another very important aspect that needs to be addressed at a peer group meeting

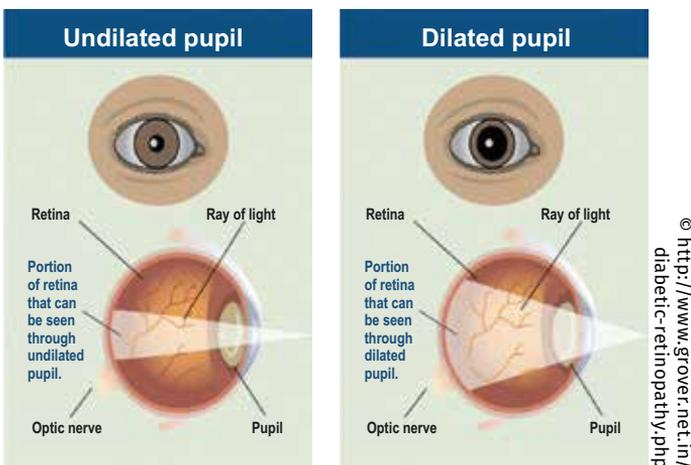


Figure 7. A patient being screened with advanced non- mydratiac fundus camera.

Diet and physical activity/regular exercise (a dietician and/or physical fitness expert can be asked to be a co-facilitator).

If the meeting is for a younger age group it can be a peer group activity session involving fun activities like puzzles, or a quiz on identifying right food groups, exercises and games like Musical Chairs (where each chair has a flash card with Do's & Don'ts eye health messages) can be useful.

MAINTAINING OVERALL EYE HEALTH (DO'S & DON'TS)

Do's

- Eat balanced and healthy food for eyes
- Include eggs, carrots, papayas, green leafy vegetables, and almonds
- Exercise regularly
- Sleep adequately
- Maintain good hygiene
- Use medications as instructed
- Regular eye check-ups
- Keep blood sugar under control

DON'TS

- Self-medication
- Rubbing eyes
- Smoking

Role play is another impactful method to educate the group in a fun way. (Examples of role play scenarios are given in the appendix III).

A peer group meeting could also be made very interactive by having a question and answer session. (Sample questions and answers that can be asked can be found in the appendix.)

GUIDELINES FOR DIET MODIFICATION

When the theme of the peer group meeting is diet and healthy choices:

- Involve a dietician whenever possible.
- Be sensitive to the feelings of the people in the group.
- Lead the discussion in a positive direction.
- Provide the audience with all locally available healthy food options.
- Instead of saying "you cannot eat a particular food", suggest a healthy alternative. This is even more important if the group belongs to a younger age group.

Use a food pyramid to explain the different types of food groups and benefits of each.

INSIST ON EATING –

More	Moderate	Avoid/Minimum
<ul style="list-style-type: none">• Vegetables - especially green leafy vegetables• High-fibre foods – beans and peas• Millets like ragi and jowar; carbohydrates like wheat, brown rice and maize	<ul style="list-style-type: none">• Fats• Cereals and root vegetables• Pulses, fruits and nuts• Milk products, meat and eggs	<ul style="list-style-type: none">• Sugar, sweets, honey• Jams and jellies,• Cakes and pastries• Sweetened juices and soft drinks

More information about diet plans for patients with diabetes based on the Body Mass Index can be found at http://www.diabetesindia.com/diabetes/veg_diet1500.htm

PHYSICAL ACTIVITY

Importance of physical activity should be emphasised at every meeting. Invite a physical fitness expert to demonstrate some easy exercises to the group.

SAMPLE SESSION

- Welcome the audience
- Explain the purpose and outline of the peer group
- Introduce the programme
- Begin with an icebreaker to help the participants feel more comfortable and so they can get to know other members of the group as well
- Explain the rules/expectations of the programme
- Discuss the topic of the day (or the talk by guest speakers)
- Encourage motivational speeches by key members of the peer group
- Share experiences
- Discuss overall goals that participants may have
 - Create a plan to achieve these goals – both short-term and long-term goals
- End on an encouraging note with an interactive activity.

Role playing scenarios

- Doctor with newly diagnosed diabetic patient
- Two friends having a casual conversation (both have diabetes)
- One older diabetic patient helping out a newly diagnosed diabetic patient

(Find examples of role play in the appendix.)

Appendices

I. SLIDES EXPLAINING EYE CARE AND DR (CAN BE SHOWN AS A PPT)

Simulation of defective vision in a diabetic patient with proliferative diabetic retinopathy and vitreous hemorrhage



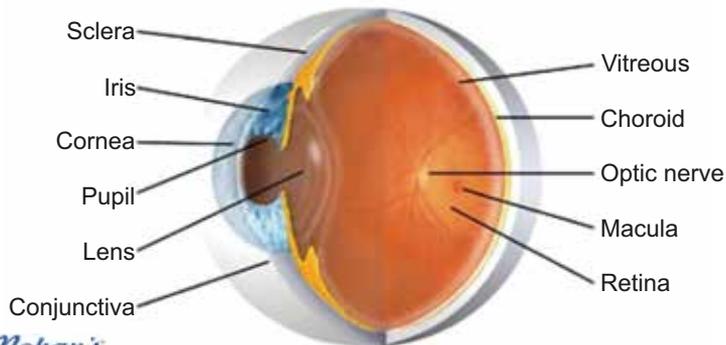
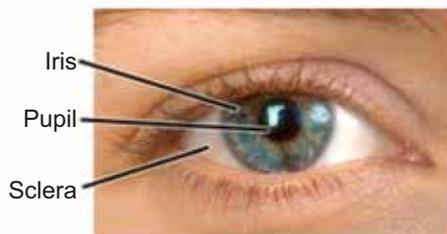
Normal



Defective in PDR with vitreous hemorrhage



Cross section of the eyeball



Common eye complaints/symptoms



Redness, itching or irritation in eyes

➤ Not all redness in the eyes is Madras Eye/Conjunctivitis.



➤ There can be a hidden foreign body, stye, allergy or ulcer in the cornea.

➤ **Do not rub your eyes.**



✓ Wash your eyes with clean drinking water

✓ **Should consult eye doctor.**

✓ No self medication.

Diabetic retinopathy

- ❖ Of the many complications of diabetes, blindness is perhaps the most feared.
- ❖ Diabetic retinopathy is an eye complication of diabetes affecting the retina, the light sensitive part of the eye.
- ❖ People with diabetes are twice as likely as people without diabetes to develop eye problems.
- ❖ 8 out of 10 people having type-1 diabetes for more than 15 years may develop diabetic retinopathy in their lifetime.

Who is prone to diabetic retinopathy?

- ❖ Patients with uncontrolled diabetes (Both type-1 and type-2 diabetes).
- ❖ Patients with long term diabetes.
- ❖ Patients with diabetes and associated uncontrolled hypertension and lipids.
- ❖ Patients with family history of diabetic retinopathy (siblings and/parents).

How to detect diabetic retinopathy ?

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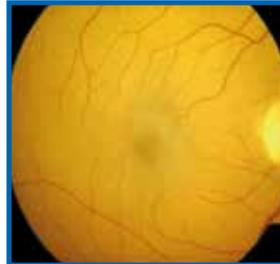
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- ❖ Glass power testing is not a complete eye examination.
- ❖ Diabetic retinopathy **does not** give any symptoms
- ❖ Retinal examination after dilating the eye with drops, by a trained ophthalmologist to be done once in a year (**yearly**)

Fundus examination of a T1D child

Type 1 diabetes

Retinal examination should be done within 3-5 years after diagnosis and every year thereafter



Normal retina

Diabetic retinopathy screening for type 2 diabetes

Start diabetic retinopathy screening upon diagnosis of diabetes



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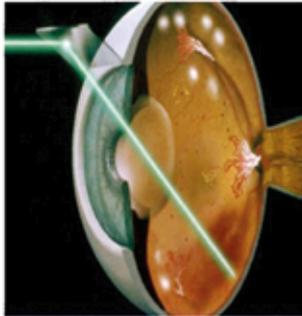
Treatment for diabetic retinopathy includes Laser treatment

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- Safe painless out-patient procedure.
- Can resume normal work immediately

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Indications for laser treatment

- 1. Severe diabetic macular edema**
Abnormal fluid and fat deposits accumulation in the main vision area of retina.
- 2. Proliferative diabetic retinopathy**
Abnormal new blood vessels which can bleed and affect vision.



Intravitreal injection

- Intravitreal anti-VEGF or steroids
- For severe diabetic macular edema and proliferative retinopathy, drugs are injected into the white part of the eye (intravitreal) to reduce the damage in the retina and improve the vision



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Do's & don'ts

Do's

- ❖ Healthy food
- ❖ Exercise
- ❖ Good sleep (rest)
- ❖ Keep your hands clean (children)
- ❖ Keep all your medical parameters under control.
- ❖ Regular eye check up

Healthy food for eyes



Don'ts

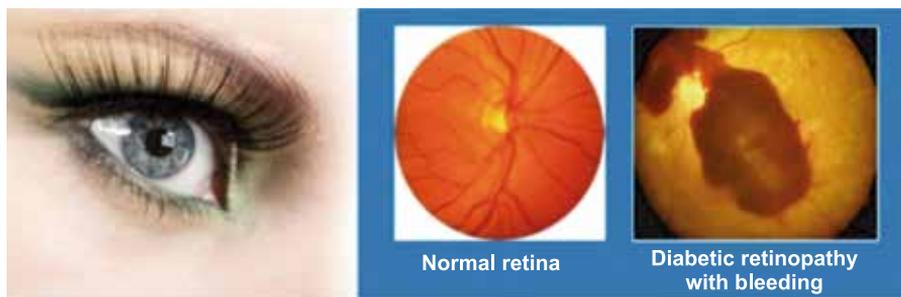
- ❖ Do not rub eyes
- ❖ No self medication for eyes



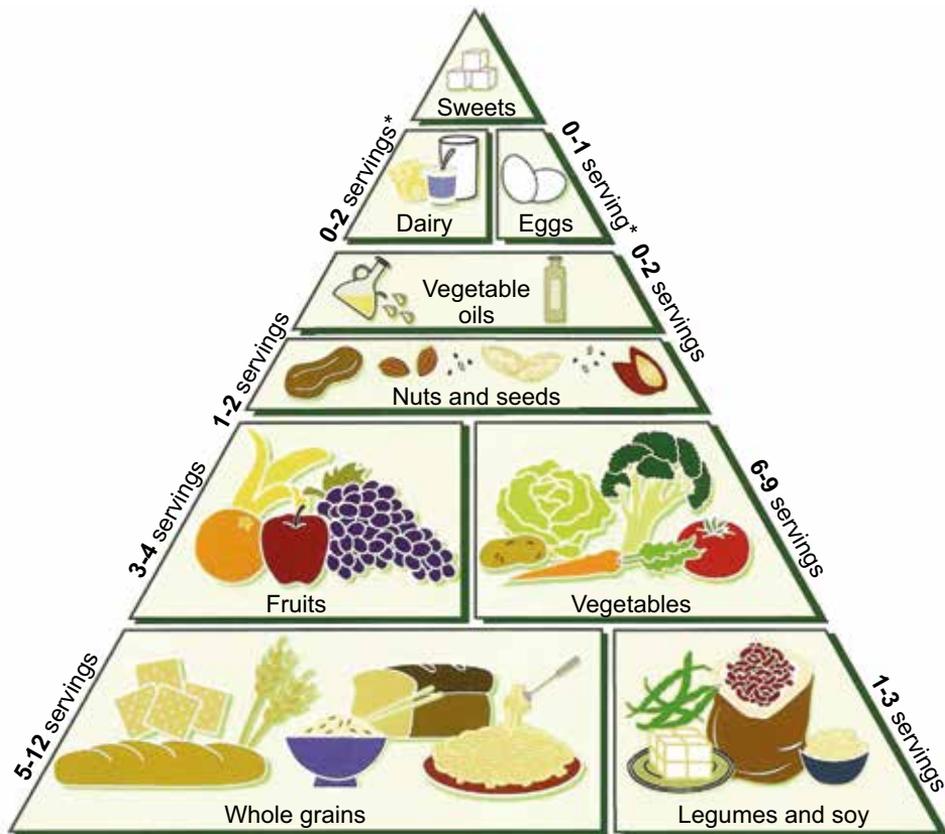
Take home message

- ✦ Appropriate screening for retinopathy and care (blood sugar control), early detection and timely treatment of diabetic retinopathy can reduce the risk of vision loss due to diabetes.
- ✦ Yearly repetitive retinal assessment/examination is advisable for all people with diabetes.

Have your eyes checked periodically



II. FOOD PYRAMID



* A reliable source of vitamin B12 should be included if no dairy or eggs are consumed.

Other lifestyle recommendations



Daily exercise



Water – eight, 8 oz. glasses per day



Sunlight – 10 minutes a day to activate vitamin D

Sourced from: https://upload.wikimedia.org/wikipedia/commons/1/18/Loma_Linda_University_Vegetarian_Food_Pyramid.jpg

III. ROLE PLAY EXAMPLES

A. Doctor with newly diagnosed person with diabetes

Scenario: *Patient, Mr. Rao, is visiting the doctor today to find out what is wrong with his health. The doctor ordered a few tests (blood and urine exam) as he was complaining of constant tiredness, increased frequency of urination and extreme thirst.*

Doctor: Hello, Mr. Rao! How are you feeling today?

Mr. Rao: Hello, Doctor! I still feel a little under the weather.

Doctor: I see that you are here to find out the results of your blood tests done during your last visit. Since you had the symptoms of fatigue, frequent urination and extreme thirst I ordered tests to screen for diabetes and the results show that you have Type 2 diabetes.

Mr. Rao: Diabetes! What is diabetes? What causes Type 2 diabetes?

Doctor: In simple language, diabetes means too much sugar (glucose) in the blood. Sugar comes from the foods we eat, like bread, fruit, starchy vegetables and dairy items. We get energy from sugars. Insulin is a hormone produced in our body that helps the sugar to move from blood into the cells. Our cells use the glucose to make energy, which is used for all the activities we do like run, walk, skip, play, etc. In Type 2 Diabetes our body develops resistance to insulin.

Mr. Rao: What happens now?

Doctor: If your blood sugars are not controlled, diabetes can affect your eyes, kidneys and nerves, and can cause frequent infections and delay in healing of wounds.

Mr. Rao: Can diabetes be treated?

Doctor: Sure! All it requires is some changes in life style, which means choosing healthy meals, regular exercise and medications. You need to eat more vegetables, fibre-rich foods and avoid sweets or any foods that tend to increase your sugar levels. Next, daily exercise is a must. Exercise can include walking, cycling or swimming, as per your preference. Take the medication prescribed to you.

Mr. Rao: Well! If I do as advised, how will I know that my blood sugar levels are normal?

Doctor: There is a simple blood test that can be done once in three months to ensure your treatment plan is working effectively.

Mr. Rao: How about the complications you have mentioned? How can I prevent them?

Doctor: Good question. Keeping your sugar levels under control is extremely important. Regular screening for diabetes related complications is a must.

Mr. Rao: You mentioned about my eyes getting affected. What precautions should I take?

Doctor: Yes, it is very important that you get a complete eye examination done by an eye specialist every year, in addition to keeping your sugar levels under control.

Mr. Rao: Doctor! I recently got my eyes checked and they have prescribed new glasses. You are talking about a complete eye exam! Is this something different?

Doctor: You have to get a retinal examination done. The retina is the innermost layer of the eye that is that is essential for vision.

Mr Rao: How is a retina examination done?

Doctor: It is very simple. Drops are put into the eye to dilate the pupil before examination. At some eye centres they have special cameras that take the photographs of the retina without dilatation. This is done by screeners trained in taking the retinal photographs.

Mr. Rao: Thank you, Doctor, for the information. I will do as advised and take care of my health.

B: Conversation between two friends with diabetes

Scene: *Mr. Khurana is visiting Mr. Kumar at his house. He was concerned about Mr. Kumar since Kumar was not seen at their regular laughing club meetings.*

Mr Kumar: Hello, Mr Khurana. Come, come, what a pleasant surprise!

Mr Khurana: Hello, Mr Kumar! How are you? I was passing by and thought I would check on you as I was concerned.

Mr. Kumar: Concerned? Why?

Mr. Khurana: Because you have not been coming to the meetings these days. I have been looking for you for the last two days.

Mr. Kumar: Mr. Khurana! Sorry, I forgot to tell you. I went to see an eye doctor.

Mr. Khurana: Eye doctor! Why? Is something wrong with your eyes?

Mr. Kumar: No, my physician asked me to get a complete eye examination as I have diabetes.

Mr. Khurana: I too have diabetes but I was not aware that you had to get an eye exam. My physician never referred me to any eye doctor nor asked me to get an eye exam.

Mr. Kumar: I didn't know either, but thanks to my doctor, now I know that a yearly retinal exam is a must.

Mr. Khurana: Retina? Now what is that?

Mr. Kumar: The retina is the innermost light sensitive layer of the eye. It is here that the visual image is formed. Uncontrolled diabetes will slowly damage this delicate layer and cause a condition called DR. If DR is not managed, it will lead to loss of eye sight. That's why it is very important to keep your sugar levels under control, and get an eye screening done every year.

Mr. Khurana: Is the examination complicated?

Mr. Kumar: Not at all. It is very simple and quick. All they do is put drops in the eyes to dilate the pupil before examining. You might have little blurred vision for some time, that's all. By the way, this can be done without dilatation too. There is sophisticated equipment available at some eye centres to examine the retina without dilatation.

Mr. Khurana: If diagnosed with DR, can it be treated?

Mr. Kumar: My doctor said that the treatment depends on how severe the condition is on diagnosis. Laser treatment is painless and the outpatient procedure requires two to three sittings. One can immediately go back to work after the procedure. The other treatment method is injections into the white part of the eye, called intravitreal injections.

Mr. Khurana: Thank you, Mr. Kumar, for enlightening me about DR. I will go for a retinal exam ASAP. I am happy to know that keeping blood sugar levels under control and having yearly complete eye screening can help save sight.

IV. SAMPLE FLASH CARDS WITH QUESTIONS ON ONE SIDE AND ANSWERS ON THE OTHER.

QUESTIONS AND ANSWERS CAN BE IN THE FORM OF TEXT OR IMAGES, OR BOTH.

<p>Front of the card</p> <p>WHAT IS DIABETIC RETINOPATHY?</p>	<p>Back of the card</p> <p>Diabetic Retinopathy is a diabetes complication that affects the eyes. It is caused by damage to the blood vessels of the light-sensitive tissue at the back of the eye (retina).</p>
--	--

Front of the card

WHICH OF THE FOLLOWING FOOD GROUPS SHOULD WE AVOID, OR EAT MINIMALLY?

		
<p>Vegetables, bread and grains</p>	<p>Fats</p>	
		

Back of the card

WHICH OF THE FOLLOWING FOOD GROUPS SHOULD WE AVOID, OR EAT MINIMALLY?

	
<p>Fats</p>	

Glossary

S No	Name	Meaning
1	Adolescence	Teenage years
2	Angiogenic	The formation of new blood vessels.
3	Chronic	Continuing for a long time or recurring frequently.
4	Endothelium	It is a thin layer of cells that lines the interior surface of blood vessels.
5	Genetic	Hereditary
6	Gestational	The period of the development of a child or young animal while it is still inside its mother's body.
7	Hormones	A chemical substance produced in the body that controls and regulates the activity of certain cells or organs.
8	Hypertension	Increase in blood pressure above normal range.
9	Hypoglycaemia	The blood sugar decreases to below normal levels. Hypoglycaemia causes sweating, fainting, confusion, etc.
10	Insulin	A natural hormone made by the pancreas that controls the level of the glucose in the blood. Insulin permits cells to use glucose for energy.
11	Mammal	Any animal of which the female feeds her young on milk from her own body.
12	Lipids	The group of organic compounds that are greasy to the touch, insoluble in water, and soluble in alcohol and ether. They are important structural materials in living organisms. They are a source of stored energy
13	Micro aneurysm	Tiny swelling in the wall of a blood vessel.
14	Micro vascular	Constituting the part of the circulatory system made up of minute blood vessels that average less than 0.3 millimetres in diameter.
15	Mydriatic	Mydriatic is the dilatation of the pupil. A mydriatic pupil will remain excessively large even in a bright environment.
16	Neo vascularization	The development of new blood vessels, especially in tissues where circulation has been impaired by injury or disease.

S No	Name	Meaning
17	Obesity	Obesity is an abnormal accumulation of body fat, usually 20% or more over an individual's ideal body weight. Obesity is associated with increased risk of illness, disability, and death.
18	Organ	Biological structure
19	Pancreas	An organ in the body that produces insulin (a chemical substance that controls the amount of sugar in the blood) and substances that help to digest food so that it can be used by the body.
20	Placenta	The organ in mammals that forms inside the mother's uterus, nourishes the unborn baby, and is pushed out of the mother after the birth of the baby.
21	Proliferative	To increase in number or spread rapidly and often excessively.
22	Venous	Composed of veins. Veins are blood vessels that carry blood towards the heart.

Acronyms and abbreviations

AV	audio-visual
DME	Diabetic Macular Oedema
DR	diabetic retinopathy
IRMA	Intra-Retinal Micro Vascular Abnormalities
NCD	Non Communicable Diseases
NPDR	non-proliferative DR stage
PDR	proliferative DR stage
PHFI	Public Health Foundation of India
PL	peer group leader
PPT	power point presentation

The peer group facilitator guide is for anyone who works in the field of diabetes and diabetic retinopathy (DR). In most health facilities, diabetes control is part of general healthcare delivery. Improving management of diabetes-associated complications is therefore part of improving healthcare services. The facilitator guide helps in planning and executing peer group meetings that provide a platform for people with diabetes. Such platforms allow sharing of knowledge about healthy practices and behaviour modification in the control of diabetes and prevention of diabetic retinopathy.



Plot # 1, Rd Number 44
Kavuri Hills, Madhapur, Hyderabad, Telangana 500033
Phone: 040 4900 6000
<http://www.phfi.org/>