RSSDI
Indian Diabetes
EDUCATOR JOURNAL

World Diabetes Day Special Issue

Theme of the Month

Access to Diabetes Care: Education to Protect Tomorrow

To keep Members Diabetes Care team abreast about
DSME /DSMS - (Diabetes Self management Education / Support) Concepts

2015 2016 2017 2018 2019 2020 2021 2022

Longest Running Monthly Journal

In collaboration with USV

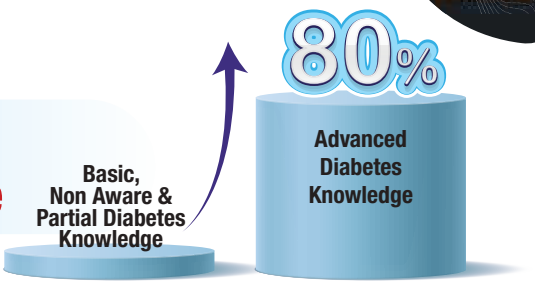
Beat Diabetes Win Life

Published in D-TechCon

D-TechCon World Congress of Diabetes Technology

For all your new & existing people with diabetes

Diabetes Knowledge Improvement with this course



Diabetes Education Certificate Course In your name

Simple & easy steps for patients

- Scan QR
- Choose from 12 languages
- Access course (12 Modules)

12 Must to know topics

- Basics of Blood Sugar
- Understanding High Blood Sugar
- Blood sugar monitoring
- Know your Risk
- Heart & Kidney link
- Diabetes & footcare
- Diabetes & Eyes
- High Blood sugar & Immunity
- Medication adherence
- Self management of Blood sugar
- Safe feasting & fasting
- Healthy habits

Well informed adherent patients

- Patients to give tests to check their knowledge on each
- Reports are visible in dashboard
- Certificates and badges will be sent on your behalf

An awareness initiative by USV

Ref.: Dr rajeev chawla et al, World congress of diabetes technology 2022.

RSSDI Indian Diabetes
EDUCATOR JOURNAL

1 st time in India
To keep the members of diabetes care team abreast with DSME and DSMS concepts

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*DSME: Diabetes Self-Management Education, DSMS: Diabetes Self-Management Support

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RSSDI Indian Diabetes EDUCATOR JOURNAL

1 st time in India
To keep the members of diabetes care team abreast with DSME and DSMS concepts

FOREWORD

Research Society for the Study of Diabetes in India (RSSDI) founded by Prof MMS Ahuja in the year 1972 is the biggest scientific association of healthcare professionals involved in promoting diabetes education and research in India. RSSDI is happy to collaborate with USV to support their endeavour to make India the 'Diabetes care capital of the world'. Through this collaboration, RSSDI would like to strengthen the cadre of diabetes educators by empowering them with recent updates in diabetes management helping bridge the gap between the physician and the patient. Today, the rule of 50% is prevailing in terms of awareness, detection, treatment and control in T2DM.Our aspiration is to achieve 90-90-90-90 i.e.90% of people with diabetes should be made aware, 90% should be detected, 90% of those detected should be treated, and 90% of those treated should reach their goals.

Indian Diabetes Educator Journal (IDEJ) is the first of its kind in India, and the longest running monthly diabetes educator journal since April 2015 & continues its endeavour to spread awareness, knowledge and enable healthcare teams to manage individuals with diabetes and empower them for self-care. RSSDI IDEJ will continue to keep the members of diabetes care team abreast with concepts of Diabetes Self-Management Education/Support (DSME/S) with a reach of 44000 doctors and diabetes educators digitally.

Some essential components of diabetes care remain beyond the reach of many who need them. November 14th is World Diabetes Day and the theme for World Diabetes Day 2021-23 is access to diabetes care. To mark World Diabetes Day 2022 under the sub-theme "education to protect tomorrow," this month's IDEJ aims to propagate information on the importance and need for diabetes education. We hope this journal will sensitize the diabetes educators on how important their role is in overall diabetes management and will motivate them to continue spreading the right knowledge to all people living with diabetes.

We sincerely thank our contributors for making this issue delightful reading for our readers. We dedicate this journal to all the healthcare professionals who are working relentlessly towards making "India–The Diabetes Care Capital of the World."

Sincere Regards,

Dr. Sanjay Agarwal
RSSDI Secretary

*DSME: Diabetes Self-Management Education, DSMS: Diabetes Self-Management Support

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of the month

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Article: Needs and Barriers to Diabetes Education in People with Diabetes Mellitus

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Article: Role of Diabetes Educators

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Article: Effect of Individualized Education in People with Type 2 Diabetes Mellitus

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Article: Evolution of Diabetes Education for Physicians in India

RSSDI Indian Diabetes EDUCATOR JOURNAL

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Cover Story: Needs and Barriers to Diabetes Education in People with Diabetes Mellitus

Dr. Vinod Mittal

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Worldwide, diabetes mellitus is a serious and growing medical issue that affects people of all ages. It is one of the top 10 adult causes of death, a significant long-term condition that has an impact on every element of a person's quality of life, family, and society at large. Diabetes is becoming more prevalent in India because of a number of factors, including genetic susceptibility, alterations in lifestyle, and the effects of urbanization and globalization. Along with nutrition, exercise, medication, and insulin treatment, diabetes education is a crucial part of the caring process. Professor Sieradzki noted that diabetes education is a requirement for effective diabetes management. A person with diabetes ought to be more knowledgeable about their condition. A person with diabetes should be equipped with the necessary information, abilities, and attitudes to manage their condition.

Importance of diabetes education

Diabetes education is a useful therapeutic strategy. Successful diabetes prevention and management are built on education. Through targeted interventions, the diabetes educator can help people with diabetes (PwD) reduce the negative effects of their environment, stop the progression of their condition, and resume their normal lives.

Diabetes education helps by:

a) Changing a person's inappropriate behavior

b) Motivating them to follow therapeutic recommendations

c) Improving their quality of life, forming a partnership with the treatment process

d) Preparing them for self-care

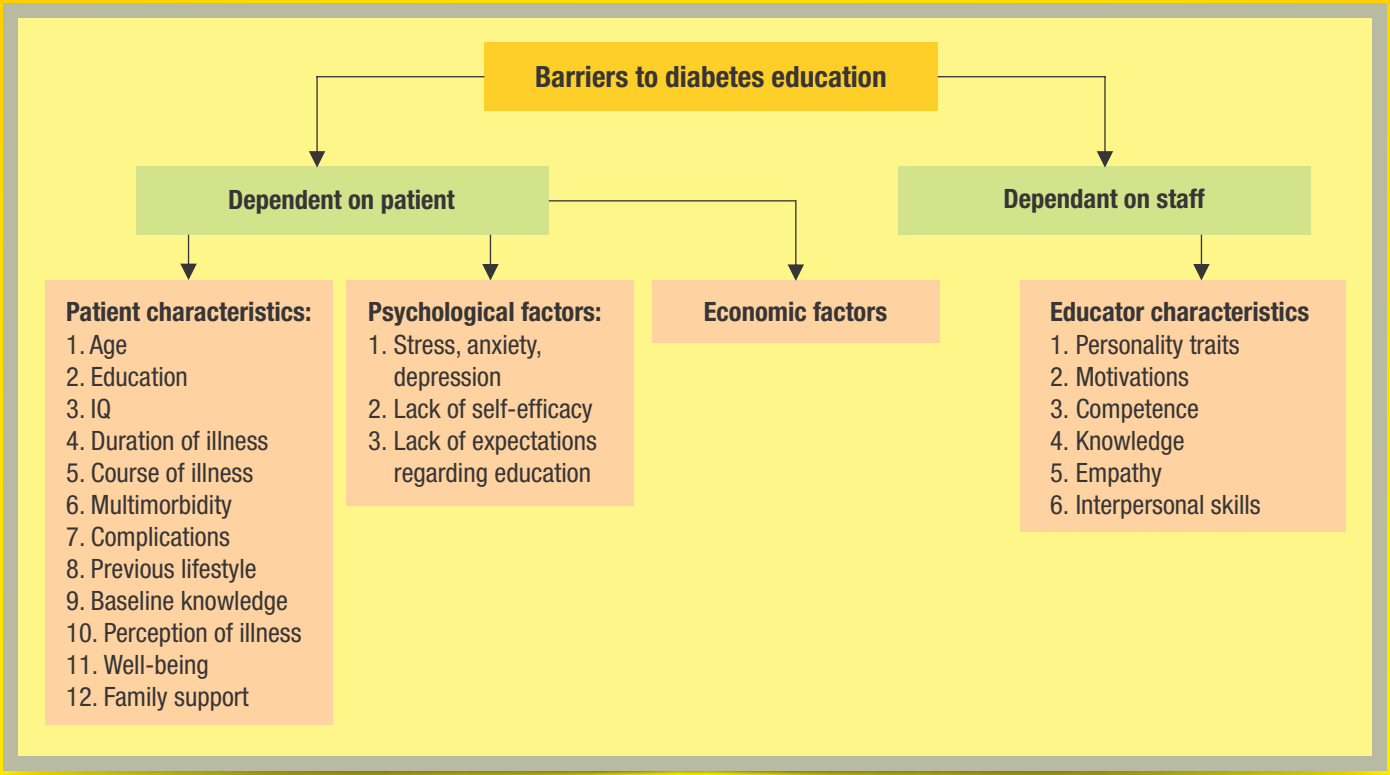
e) Raising their awareness of diabetes-related complications

f) Enhancing their psychological toughness

g) Imparting knowledge and skills

According to research, only 5% of patients who receive regular education are unable or unwilling to follow treatment instructions. People with diabetes are more likely to be inadequately educated, and those with no formal education are up to four times more likely to experience diabetes complications. Additionally, education promotes experience sharing, boosts motivation for self-care, and fosters collaboration with the therapy team.

In order to facilitate the start of an education program promoting self-care among PwD and their families, Rafique G. *et al.* (2006) conducted a study to assess the needs, awareness, and barriers to diabetes education for self-management. They discovered that knowledge, beliefs, and fears about diabetes, family influence, and accessibility to healthcare, affect management behaviors and learning, so understanding the needs and expectations of people with diabetes is essential.



Barriers affecting the education process may be classified as

1) Patient-related (psychological and economic) factors include:
   a) Patient age, education, illness duration and course, multi-morbidity, complications, prior lifestyle, and baseline disease knowledge are all patient-related characteristics that can affect the effectiveness of education.
   b) The fallacy that diabetes is not a serious condition.
   c) Other justifications for not taking part in diabetes education include general health, the belief that one can control their condition, and having enough information.
   d) The psychological state of the patient, particularly stress, anxiety, and depression, may lessen the impact of education.
   e) A lack of self-efficacy is another element that makes a patient withdraw from social interactions and have no aspirations for their educational future.

2) Educator-related factors include:

a) The educator's personality, motivations, competence, knowledge, empathy, and interpersonal skills.

According to the DAWN 2 survey, which included 4785 healthcare workers from 17 different countries, it was seen that many healthcare facilities lack the resources necessary for diabetes teaching. A patient's willingness to participate in self-care is also influenced by the educational staff's encouragement, attitudes, and social abilities. Alarmingly, no appreciable progress was made with regard to the concerns discussed during a period of several years following the DAWN research. Given that education is not a lucrative endeavor, its implementation continues to be a significant concern.

However, considering funding for diabetes education services is warranted by its numerous advantages. Involving the patient's family in the educational process benefits the patient, helps the family understand the challenges of living with diabetes, and makes it easier for the PwD to adhere to treatment. The patient's family and caregivers frequently encourage them to take steps to enhance their health. The best motivator of adherence is family support, which also helps to increase self-care competency.

Diabetes education frequently falls short of patient and family expectations, partly because it is rarely customized. Being aware of these expectations enables diabetes educators to work more productively. Most people with type 2 diabetes are older; thus, this must be taken into consideration while designing educational programs.

Patient compliance with therapy is influenced by their financial situation. Therefore, regardless of any self-care instruction, a patient who cannot afford the treatment will not adhere to it. As a result, the patient will be less motivated to learn the desirable attitudes, information, and abilities that are taught in a diabetes education program.

Diabetes education has an impact on how diabetes is managed. It has been demonstrated that diabetes education improves patient self-care and metabolic control. It is an effective tool and needs to be enhanced and made accessible far and wide to control the mortality and morbidity from diabetes.

Resources:

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Frequently Asked Questions

1. I am a 43-year-old man recently diagnosed with diabetes. I have always led a sedentary life. Now due to diabetes, I am being advised to join the gym however, I have heard that exercising increases the risk of heart attack in people with diabetes. Is this true?

Ans: Exercise forms an important part of diabetes management. Regular exercise helps in lowering body weight and body fat levels, improving insulin sensitivity and other blood parameters like lipid profile. It also helps to reduce blood pressure and increases stamina. Thus, exercise helps in improving cardiovascular health and reduces the risk of heart problems other than giving good blood glucose control. Before starting any exercise regime, it is important to get yourself checked by the doctor for any co-morbidities and to regulate the medication/insulin dose to avoid hypoglycemia. If you already have any heart issues, your doctor will guide you on which exercises are safe for you. The recommendation is 150 min/week of moderate-intensity aerobic exercise plus 2 days of muscle strengthening. Start slowly and remember to always do 5-10 min of warm-up and cool down before and after exercise. These safety precautions will make sure you benefit from exercise without any health risks.

2. I am a 52-year-old woman. I have had diabetes for 2 years now. I love fruits but I know that fruits have sugar so should I avoid fruits completely?

Ans: Fruits are a powerhouse of essential vitamins and antioxidants and are necessary for good health. However, they are also a source of simple sugars and thus need to be consumed in moderate amounts at the right time. People with diabetes can eat fruits in portioned amounts depending on their blood glucose control and activity. It is advisable to have seasonal, slightly unripe fruits, maintain portion control and eat them as a mid-meal snack. Avoid eating fruits along with or just after meals. Fruits should be combined with nuts like walnuts, pistachios, and almonds to blunt the blood glucose spike. Talk to your dietitian to know how much fruit you can have and the best time in the day to have it.

3. My sister (32-year-old) is having diabetes for the last 3 years. She is on oral medications for the same. She lives with us but does not eat the same food as us and buys special products labeled as sugar-free or diabetes-friendly. However, her blood sugar levels continue to be high. What could be the possible reason for the same?

Ans: Products labeled as sugar-free or diabetes-friendly do not necessarily mean that they are free of calories and carbohydrates. They may not include added sugars but may have high carbohydrates in them which get broken down into glucose and raises the blood glucose levels. They may also have a high-fat content which can lead to insulin resistance and further make diabetes control difficult. Instead of these products, the focus should be on eating a regular diet that is portion controlled with complex carbohydrates, adequate protein, and fiber along with regular exercise for better glycemic control.

4. My brother is only 24 years of age. Recently he has been diagnosed with prediabetes during a routine screening process in his office. Is this condition reversible? Do we need to go for further testing to confirm the diagnosis? How often should we screen for diabetes?

Ans: Prediabetes is a "pre-diagnosis" of diabetes. It is a condition when your blood glucose level is higher than normal, but it is not high enough to be diagnosed as diabetes. It is diagnosed if the fasting blood glucose level is between 101-125 mg/dL, the postprandial blood glucose level is between 141-199 mg/dL and the HBA1c level is between 5.8-6.4%. It is a warning bell for diabetes and it is possible to prevent prediabetes from developing into type 2 diabetes. A healthy lifestyle that includes eating healthy food, losing weight or maintaining the ideal weight for height, and being physically active can help your brother bring his blood glucose level back into the normal range. Since he is having pre-diabetes, he should be tested for type 2 diabetes every 1-2 years after diagnosis.

Role of Diabetes Educators

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"Diabetes education is a prerequisite for good diabetes control. An individual with diabetes should know more on their disease than does their physician." – Prof. Sieradzki

Lately, it has been proven that, apart from diet, exercise, pharmacotherapy, and lifestyle modification; diabetes education, has a major impact on the management of diabetes and its complications. It was observed that individuals who were well-educated, had better control of their blood glucose levels and a lower risk of developing further diabetes complications.

Who are diabetes educators?

A Certified Diabetes Educator (CDE) is a health specialist who possesses thorough knowledge of and experience in prediabetes prevention and management of diabetes. CDE is a vital part of the diabetes management team.

Their main goal is 'Improving an individual's knowledge, and promoting self-management.' They educate individuals on the impact of various factors such as food, environment, exercise, stress, and medication on blood glucose levels, with the help of various educational tools.

Role of a diabetes educator (DE)

According to the American Association of Diabetes Educators (AADE), a diabetes educator plays an important role in the management of an individual's blood glucose levels and needs to educate people with diabetes (PwD) on multiple aspects associated with the condition.

1. Diet and lifestyle modification

It is a well-known fact that a well-balanced diet, alongside a healthy lifestyle, has a major impact on the management and treatment of diabetes mellitus. A diabetes educator, along with the help of various tools ensures that people are aware of the impact of healthy food choices and portion control, along with regular exercise in diabetes management and overall fitness.

2. Self-monitoring of blood glucose levels

A diabetes educator plays a major role in educating and building the self-confidence of PwD on the importance and right technique of self-monitoring of blood glucose levels. Research has seen that individuals, who are aware and self-monitor their blood glucose levels on a daily basis can evaluate how well their diet, exercise routine, insulin use, timings, and dosages of medications are working. Blood glucose levels, urine ketone levels, blood pressure, and body weight are a few of the parameters that need to be checked regularly in PwD. The CDE plays a vital role in motivating the PwD to keep a check on these regularly.

3. Pharmacotherapy

Diabetes educators should be able to assess the drugs prescribed and assist in understanding how they function in the body and what side effects they could cause. DE plays a very important role in educating the PwD about insulin, the right injecting techniques, and busting all the myths and fears that PwD may have regarding insulin therapy.

4. Complications of diabetes

Uncontrolled diabetes can lead to microvascular and macrovascular complications. A diabetes educator should ensure that PwD is aware of such complications and various ways on how to prevent and treat them. They should also ensure that people with diabetes regularly schedule visits with their doctor and get the relevant annual tests done for screening of diabetes complications. They also play a vital role in educating the PwD on the management of hypoglycemia as well as hyperglycemia.

5. Healthy coping

Social and psychological factors may have an impact on a person's motivation to control their diabetes. Health and quality of life are impacted by both of these. An important part of the job of being a diabetes educator is to identify an individual's motivation to change behavior and help them establish clinical and behavioral achievable goals, with guidance on the multiple obstacles. Diabetes educators should assist PwD in managing their physical, emotional, cognitive, and financial challenges and encourage them to create coping mechanisms.

A diabetes educator should always follow the **"EUP principle"** and remember that- merely "Educating" the patient is not enough. One can teach, but the patients may not **"Understand"** which is of extreme importance if they have to achieve good glycemic control. Unfortunately, even if they understand, many may not **"Practice"** what is taught. The true success of DE only comes when their patients practice what they have been taught.

DE's are the bridge between the doctor and the patient. Their role is to handhold the patient, reassure them and guide them in every aspect that helps them to live a more fulfilling and better quality of life while achieving their glycemic targets.

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2. Toledo, M., Rodrigues Costa, J. and da Silva, E. Diabetes Educator: Current Perspectives on their Importance. *JSM Diabetology and Management*,2016
3. Świątoniowska N, Sarzyńska K, Szymańska-Chabowska A, Jankowska-Polańska B. The role of education in type 2 diabetes treatment. *Diabetes Res Clin Pract.* 2019; 151:237-246. doi:10.1016/j.diabres.2019.04.004

Did You Know?

Food Safety and Standards Authority of India (FSSAI) has launched an 'Eat Right Movement' to reduce the spread of non-communicable diseases (NCD) in India.

India has the fifth-largest food processing industry in the world and its popularity is considered to be a major factor in Indians' increased consumption of sugar, salt, and fat. As per the World Health Organisation's (WHO) recent data, 61% of all deaths in India are due to non-communicable diseases, and lifestyle-related disorders including diabetes, high blood pressure, etc. These disorders are directly related to the quantity of sugar, salt, and fat consumption. As per the study, it is found that compared to the year 2000 average daily consumption of sugar, salt, and fat increased in the year 2010 from 22 g to 55.3 g, 12 g, and 21.2 to 54 g per day respectively. It is also observed that over the past 10 years due to high consumption of salt, sugar, and fat the percentage of death by diabetes has increased roughly by 50% and obesity has become one of the top three killers. Therefore, to reduce the risk of these lifestyle disorders, FSSAI and the Health Ministry have launched a campaign 'Eat Right Movement' with the tagline ***'Aaj Se Thoda Kam'.*** The goal of this campaign is to increase public awareness that consuming large amounts of sugar, salt, and fat is not healthy and these should be consumed as less as possible. In the following three years, this campaign focuses to decrease the amount of sugar, salt, and fat in packaged goods by 30%. It has also requested manufacturers of packaged foods to deliberately reduce the amount of sugar, salt, and fat in their food items.

Eat Right India
सही भोजन. बेहतर जीवन.

Resources:

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2. Fssai.gov.in. https://www.fssai.gov.in/upload/media/FSSAI_News_ETM_LatestLY_18_07_2018.pdf. Published 2022.

Facts and Figures

A recent study was conducted by Gagliardino JJ *et al,* (2019) to understand the impact of diabetes education and self-management on the quality of care for people with type 1 diabetes mellitus in the Middle East and it was observed that

1. Only 54% of individuals engaged in self-management, although 75% self-monitored blood glucose (SMBG) (i.e. both SMBG and insulin self-adjustment [ISA])
2. 59% of participants had obtained diabetes education. Self-management was 2.5 times more likely to be practiced by individuals who had received diabetes education, and self-management was 1.5 times more likely to result in an HbA1c <7.0%.

Resources:

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What's Trending?
MyCare - A 20-week Diabetes Support Program by USV

As diabetes treatment improves, so should compliance with insulin therapy. At the beginning of insulin therapy, some patients may need hand-holding support to adjust and adapt to the routine.

USV sincerely values the time and efforts of healthcare professionals towards improving care for people with diabetes which has inspired USV to bring an effective and personalized diabetes education support for healthcare professionals and their newly insulin initiated patients for the first 20 weeks.

The objective of MyCare program is to handhold and empower people with diabetes, through information, education, knowledge and training for the first 20 weeks after insulin initiation, so that they are able to comply and adhere to the HCP's recommended treatment.

MyCARE would ensure personalized support and care for people with diabetes through well-qualified, well-trained, National diabetes educator program (NDEP) and Type 1 diabetes education certificate course (T1DE) certified educators. Currently, this program has been launched in a few locations in India and would be scaled up in the coming few months.

Guidance, care and relevant assistance will be provided to the people with diabetes as per their needs through:

- One-on-one in-person assistance
- Weekly touch points for 20 weeks post insulin initiation
- Device information, its usage, and training
- Starter pack full of tips & advice
- Personalised diet & exercise prescription
- Query resolution

Also, the progress of each patient will be recorded and provided to treating doctors monthly focussing on their learning of device and injection handling techniques, adherence to recommended treatment, diet and exercise advice, blood glucose reports etc.

Effect of Individualized Education in People with Type 2 Diabetes Mellitus

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One of the leading causes of mortality worldwide, diabetes mellitus, if not managed appropriately can have serious negative health consequences. The four pillars of diabetes management -healthy eating, exercise, medications, and monitoring of blood glucose levels only work with adequate compliance. Various factors that affect compliance to diabetes management include diabetes-related knowledge, environment, and individual personality as well as perception. Most diabetes management programs include diabetes education (DE), emphasizing self-care, a lifestyle change in terms of food and physical activity, and active participation in the management of the disease. DE is associated with an improved prognosis. Clinical trials have confirmed that DE significantly improves the proportion of individuals achieving therapeutic targets, increased medication adherence, and self-care performance. It is also found to be associated with a reduced rate of chronic complications.

DE programs can be conducted either at an individual level or in a group setting. DE in group settings has been a preferred choice, given the time constraints of healthcare professionals and the increasing burden of diabetes. Though systematic review of meta-analysis has shown group-based DE to improve clinical outcomes, it has a few drawbacks too. Group sessions incline to be more general and not tailored to individual's needs. These group sessions can be time-consuming and frustrating, as certain individuals may dominate the class, asking multiple questions unhelpful to others, whereas some individuals may hesitate to ask questions because of the group size.

Most individuals with diabetes have voiced a preference for one-on-one sessions rather than group classes with diabetes educators. Individualized education is more specific and comforting for individuals with diabetes. Individualized education takes into consideration the personality of the individual with diabetes, resulting in increased motivation for lifestyle modification. Studies with individualized education in diabetes have shown positive health outcomes such as significant reductions in body weight, waist circumference, and body mass index, resulting in improved blood glucose control, blood pressure, and cholesterol levels. Thus, integrating individualized DE by diabetes educators in primary care settings may help develop person-centered care environments, increase patient satisfaction, improve clinical outcomes, and support physicians in patient care.

Resources:

1. Huang L, Guo H, Xiu L, Wang H. Efficacy of individualized education in patients with type 2 diabetes mellitus: A randomized clinical study protocol. *Medicine (Baltimore)*. 2020;99 (50):e23625. doi:10.1097/MD.0000000000023625.
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Importance of Diabetes Support Groups

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Social support is regarded as one of the influential and significant factors for practicing self-care and for adherence to treatment because diabetes is a chronic condition that necessitates significant behavioral changes and adherence to a healthy lifestyle.

Diabetes support groups are community-based or online support groups where people living with the same condition can share knowledge, gain understanding, or receive emotional support. These groups give people the chance to exchange personal experiences and tips for the management of diabetes. They can empower people by providing them with skills to reduce their symptoms and improve their quality of life.

Benefits of diabetes support group

There are many benefits of joining a diabetes support group, both for the person with diabetes and the caregivers. Some of these benefits include:

- A peer support group brings people together who are going through the same experience. As a result, self-confidence is increased and feelings of loneliness and anxiety are replaced with friendship and support.
- People with diabetes may find it challenging to communicate with relatives and friends who do not comprehend the complexities of diabetes. Through peer support groups, one may always find a listening ear, without judgment, whenever they need.
- Anxiety and despair, which are frequent in people with type 1 diabetes mellitus (T1DM), can be managed by discussing the challenging elements and seeking comfort in others' positive experiences.
- Through sharing each other's personal experiences, people learn useful knowledge. For those who have recently been diagnosed with diabetes, this may be especially helpful. It might be quite beneficial to learn from others about the dos and don'ts of managing diabetes in addition to the doctor's recommendations.
- Peer support groups transform the dominant feeling from fear to acceptance and support, which heals and humanizes the illness. Peer support groups act as a source of inspiration and encouragement to live a better life rather than reading information that focuses primarily on the drawbacks of the illness.

- A crucial component of managing diabetes is scheduling routine examinations. Due to a lack of time, fear, or other factors, many people delay or avoid getting check-ups. Community check-ups in support groups enable routine check-ups in a consoling environment.
- People with diabetes can learn about useful resources, cutting-edge technologies, and medical innovations that can help them better manage their treatment through the knowledge sharing that happens in these support groups.
- Support groups at times also help the economically underprivileged sections of society to gain financial help. The larger the network of the support the group more are the chances to get financial help or discounts on screening tests or monitoring devices, insulin supplies, etc.
- There are certain peer support groups that focus on particular topics, such as a marital group, a group for parents of young children, or a group for kids with celiac disease and type 1 diabetes, enabling enhanced knowledge and direction in specialised necessary areas.

Some of the peer support groups for diabetes in India

Type 1 Peer Support Group	State
Association of Children with Type 1 Diabetes (ACT1D) Association of Diabetes (Young) with Tricity (ADITI)	Chandigarh
Juvenile Diabetes Foundation (JDF), Mumbai Blue Circle Diabetes Foundation Club One KEM, Pune Indians with T1D Kids Juvenile Diabetes Parent's Association of India (JDPAI), Nagpur Nityaasha, Pune Diabetes Care Foundation of India, Nagpur DREAM Trust, Nagpur UDAAN, Aurangabad	Maharashtra
Diabetes Awareness and You (DAY)	West Bengal
Diabetes Awareness Foundation Bihar Chapter	Bihar
Diabetic Child Society	Andhra Pradesh
Diabetes Research Society Sweet Souls Type One Thriving	Telangana
Friends Forever Tamil Nadu Type1 Diabetes Foundation Idhayangal Charitable Trust	Tamil Nadu

Type 1 Peer Support Group	State
Juvenile Diabetes Foundation (JDF) (Jamnagar, Bhavnagar, Rajkot) The Diabesties Foundation Juvenile Diabetes Parents Foundation (JDPF), Ahmedabad	Gujarat
Society for Prevention and Awareness of Diabetes (SPAD), Kanpur T1 Nawabeen, Lucknow	Uttar Pradesh
Diabuddies of Himachal	Himachal Pradesh
Type 1 Diabetes Welfare Society Type 1 Diabetes Foundation	Kerela
T1D Fighters, Abohar Ludhiana Type 1 Diabetes Sweet Stars Support Group	Punjab
Diabuddies of Karnataka Indians with T1D Kids Science and Research for Human Welfare Trust (Samatvam)	Karnataka
Diabetes Fighters' Trust Diabetes India Youth in Action (DIYA) Yog Dhyan Foundation	Delhi
Uttarakhand Diabetes Awareness Initiative (UDAI)	Uttarakhand
Type 1 Rajasthan	Rajasthan
Type 1 Diabetes Foundation of India (T1DF India)	Pan India

Living with the highs and lows of diabetes can be overwhelming. A support group helps instill a sense of security, motivates for better care practices, and builds good relationships and a sense of belonging which ultimately helps in attaining the final goal of living a good quality of life with controlled blood glucose levels.

Resources:

1. Rad GS, Bakht LA, Feizi A, Mohebi S. Importance of social support in diabetes care. *J Educ Health Promot.* Oct 2013;2:62. doi:10.4103/2277-9531.120864
2. Gilden JL, Hendryx MS, Clar S, Casia C, Singh SP. Diabetes support groups improve health care of older diabetic patients. *J Am Geriatr Soc.* 1992;40(2):147-150. doi:10.1111/j.1532-5415.1992.tb01935.x
3. Salis S, Verma S, Kohli H, Mohan V. Type 1 diabetes peer support groups: bridging the gap between healthcare professionals and people with Type 1 diabetes. Journal Of Diabetology.2022;13 (1):16-24. doi:10.4103/Jod.Jod_137_21.

In Newly diagnosed and Young T2DM patients

Start early with

Glycomet®-GP 0.5/0.5 FORTE

Metformin Hydrochloride 500 mg / 1000 mg SR + Glimepiride 0.5 mg

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Well Established Safety & Tolerability[2]

1. Distt. Hosp. Chenangpa TV et al., Indian J Endocrinol Metab. 2011 Sep-Oct; 21(5): 705–706. PMC. 2. Diabetes Ther Metab. 2017; 10:1169–1192. 3. Data on file.

Information
Metformin hydrochloride ER and glimepiride tablets.
Glycomet-GP 0.5/Glycomet-GP 0.5 Forte/ Glycomet-GP 1/ Glycomet-GP 1MD2/ Glycomet-GP 2/ Glycomet-GP 2MD1/ Glycomet-GP 2MD2/ Glycomet-GP 4/ Glycomet-GP 4 MD1/ Glycomet-GP 1 Forte/ Glycomet-GP 2 Forte/ Glycomet-GP 3 Forte/ Glycomet-GP 4 Forte.

Abridged Prescribing Information

Composition: • Glycomet GP 0.5 mg Each uncoated tablet contains metformin hydrochloride IP (as prolonged release form) 500 mg and glimepiride IP 0.5 mg. • Glycomet GP 0.5 Forte Each uncoated tablet contains metformin hydrochloride IP (as prolonged release form) 1000 mg and glimepiride IP 0.5 mg. • Glycomet GP 1 Each uncoated tablet contains metformin hydrochloride IP (as prolonged release form) 500 mg and glimepiride IP 1 mg. • Glycomet GP 1MD2 Each uncoated tablet contains metformin hydrochloride IP (as prolonged release form) 850 mg and glimepiride IP 1 mg. • Glycomet GP 2 Each uncoated tablet contains metformin hydrochloride IP (as prolonged release form) 500 mg and glimepiride IP 2 mg. • Glycomet GP 2MD1 Each uncoated tablet contains metformin hydrochloride IP (as prolonged release form) 850 mg and glimepiride IP 2 mg. • Glycomet GP 2MD2 Each uncoated tablet contains metformin hydrochloride IP (as prolonged release form) 1000 mg and glimepiride IP 2 mg. • Glycomet GP 4 Each uncoated tablet contains metformin hydrochloride IP (as prolonged release form) 500 mg and glimepiride IP 4 mg. • Glycomet GP 4MD1 Each uncoated tablet contains metformin hydrochloride IP (as prolonged release form) 850 mg and glimepiride IP 4 mg. • Glycomet GP 1 Forte: Each uncoated tablet contains metformin hydrochloride IP (as prolonged release form) 1000 mg and glimepiride IP 1mg. • Glycomet GP 2 Forte: Each uncoated tablet contains metformin hydrochloride IP (as prolonged release form) 1000 mg and glimepiride IP 2mg. • Glycomet GP 3 Forte: Each uncoated tablet contains metformin hydrochloride IP (as prolonged release form) 1000 mg and glimepiride IP 3mg. • Glycomet GP 4 Forte: Each uncoated tablet contains metformin hydrochloride IP (as prolonged release form) 1000 mg and glimepiride IP 4mg. **Indications:** Glycomet GP is indicated for the management of patients with type 2 diabetes mellitus (T2DM) when diet, exercise and single agent metformin hydrochloride or glimepiride alone do not result in adequate glycaemic control. **Dosage and Administration:** Dosage of Glycomet GP should be individualized on the basis of effectiveness and tolerability while not exceeding the maximum recommended daily dose of glimepiride 6mg and metformin 2000 mg. Initial dose: 1 tablet of Glycomet GP should be administered once daily during breakfast or with the first main meal. Do not crush or chew the tablet. In several cases the tablet may remain intact during transit through the gastrointestinal (GI) tract and will be eliminated in feces as hydrated mass (ghost matrix). Patients should be advised that this is normal as all drug components have already been released during GI transit. **Contraindications:** Hypersensitivity to glimepiride, other sulfonylureas, other sulfonamides, metformin or any of the excipients of Glycomet GP, pregnancy and lactation, diabetic ketoacidosis, diabetic pre-coma, in patients with eGFR<30 ml/min/1.73 m² acute conditions with the potential to alter renal function (dehydration, severe infection, shock, intravascular administration of iodinated contrast agents), acute or chronic disease which may cause tissue hypoxia (myocardial infarction, shock, cardiac/respiratory failure) hepatic insufficiency, acute alcohol intoxication, alcoholism. **Warnings:** Keep out of reach of children. Patient should be advised to report promptly exceptional stress situations (e.g. trauma, surgery, febrile infections), Blood glucose regulation may deteriorate and a temporary change to insulin may be necessary to maintain good metabolic control. In case of lactic acidosis, patient should be hospitalized immediately. **Precautions:** In the initial weeks of treatment, the risk of hypoglycaemia may be increased and necessitates especially careful monitoring. Serum creatinine levels should be determined before initiating treatment and regularly thereafter, at least annually in patients with normal renal function. Intravascular contrast studies with iodinated materials can lead to acute alteration of renal function. In patients in whom such study is planned, Glycomet GP should be temporarily discontinued at the time of or prior to the procedure, and withheld for 48 hours subsequent to the procedure and reinstituted only after renal function has been re-evaluated and found to be normal. Use of Glycomet GP should be discontinued 48 hours before any surgical procedure. **Adverse reactions:** For glimepiride - Hypoglycaemia, temporary visual impairment, GI symptoms like nausea, vomiting, abdominal pain, diarrhoea may occur, increased liver enzymes, cholestasis and jaundice may occur, allergic reactions may occur occasionally. For metformin – GI symptoms like nausea, vomiting, abdominal pain or discomfort may occur.

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In Obese T2DM,

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Therapeutic Advances in Endocrinology & Metabolism

Meta-Analysis of 21 well established Trials

In Patients with high BMI

BMI Reduced by 1.01 units

5% Weight loss vs Baseline body weight

High Dose Metformin improves Insulin sensitivity Vs Other OADs

FORte EVER

Source: 1. JAPI 2020 68.51.-55 2. Data on file. 3. Cureus 2020: 12(9): e10.7759/cureus.1070 4. Diabetes Technology & Therapeutics 2019..2.79-84 5. Kalra, et al.: Sulfonylurea and combinations: International Task Force Indian J Endocr Metab 2018;22:132-57.

Prescribing information

Information: Metformin hydrochloride (as prolonged release) and glimepiride tablets. Glycomet-GP 0.5/Glycomet-GP 0.5 Forte/ Glycomet-GP 1/ Glycomet-GP 1/850/ Glycomet-GP 2/ Glycomet-GP 2/850/ Glycomet-GP 3/ Glycomet-GP 3/850/ Glycomet-GP 4/ Glycomet-GP 4/850/ Glycomet-GP 1 Forte/ Glycomet-GP 2 Forte/ Glycomet-GP 3 Forte/ Glycomet-GP 4 Forte Abridged Prescribing Information **Composition:** Glycomet GP 0.5mg: Each uncoated tablet contains metformin hydrochloride IP (as prolonged release form) 500mg and glimepiride IP 0.5mg.• Glycomet GP 0.5 Forte: Each uncoated tablet contains metformin hydrochloride IP (as prolonged release form) 1000mg and glimepiride IP 0.5mg.• Glycomet GP 1: Each uncoated tablet contains metformin hydrochloride IP (as prolonged release form) 500 mg and glimepiride IP 1 mg. • Glycomet GP 1/850: Each uncoated tablet contains metformin hydrochloride IP (as prolonged release form) 850 mg and glimepiride IP 1 mg. • Glycomet GP 2: Each uncoated tablet contains metformin hydrochloride IP (as prolonged release form) 500 mg and glimepiride IP 2 mg. • Glycomet GP 2/850: Each uncoated tablet contains metformin hydrochloride IP (as prolonged release form) 850 mg and glimepiride IP 2 mg.• Glycomet GP 3: Each uncoated tablet contains metformin hydrochloride IP (as prolonged release form) 500 mg and glimepiride IP 3 mg. • Glycomet GP 3/850: Each uncoated tablet contains metformin hydrochloride IP (as prolonged release form) 850 mg and glimepiride IP 3 mg. • Glycomet GP 4: Each uncoated tablet contains metformin hydrochloride IP (as prolonged release form) 500 mg and glimepiride IP 4 mg. • Glycomet GP 4/850: Each uncoated tablet contains metformin hydrochloride IP (as prolonged release form) 850 mg and glimepiride IP 4 mg. • Glycomet GP 1 Forte: Each uncoated tablet contains metformin hydrochloride IP (as prolonged release form) 1000mg and glimepiride IP 1mg. • Glycomet GP 2 Forte: Each uncoated tablet contains metformin hydrochloride IP (as prolonged release form) 1000mg and glimepiride IP 2mg. • Glycomet GP 3 Forte: Each uncoated tablet contains metformin hydrochloride IP (as prolonged release form) 1000mg and glimepiride IP 3mg. • Glycomet GP 4 Forte: Each uncoated tablet contains metformin hydrochloride IP (as prolonged release form) 1000mg and glimepiride IP mg. **Indications:** Glycomet GP is indicated for the management of patients with type 2 diabetes mellitus (T2DM) when diet, exercise and single agent (metformin hydrochloride or glimepiride alone) do not result in adequate glycemic control. **Dosage and Administration:** Dosage of Glycomet GP should be individualised on the basis of effectiveness and tolerability while not exceeding the maximum recommended daily dose of glimepiride 8mg and metformin 2000 mg. **Initial dose:** 1 tablet of Glycomet GP should be administered once daily during breakfast or with the first main meal. 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Evolution of Diabetes Education for Physicians in India

Dr. Piyush Lodha

MBBS, MD, DM Endocrinology

Consultant Diabetologist & Endocrinologist,
Diabetes, Thyroid and Hormone Clinic, Pune

Diabetes is a chronic and growing health issue that has a significant socioeconomic impact on individuals, society, and the nation. Since the condition began to spread to low- and middle-income nations, the number of persons with diabetes has multiplied by four. According to the International Diabetes Federation (IDF), India has the second-largest population of people with diabetes (77.0 million), and predictions show that by 2045, that number would rise to 134.2 million. Additionally, India has the highest prevalence of type 1 diabetes (171,300) among children and adolescents, and the number of Indian women who have gestational diabetes is rising. This demonstrates the necessity of improving the ability of health care professionals to handle this condition effectively. Only if the healthcare workforce receives access to scientific, evidence-based, and quality-focused capacity-building programs will this be feasible.

International Diabetes Federation

Diabetes was once thought to be a disease that only affected wealthy, older, and metropolitan populations. The situation has altered recently, though, as the disorder is now affecting younger people and children as well as spreading to the rural regions. Only until the WHO predicted that diabetes-related morbidity and mortality in India would rise to 35% was diabetes given significant attention in India. The National Diabetes Control Program was consequently established in 1987. The bulk of first diagnoses in India is done by primary care providers (PCPs). On the other hand, due to a lack of expertise and resources for screening for diabetes and associated consequences, the quality of treatment offered by PCPs continues to be subpar. PCPs must periodically update their skills and expertise to better manage conditions like diabetes because medical research is evolving quickly. The World Health Organization (WHO) and the Indian Council of Medical Research (ICMR) together held a national workshop in Chennai in May 2003 to discuss guidelines for the care of type 2 diabetes mellitus. This workshop resulted in the creation of India's first guideline for this condition. These guidelines were created with the goals of establishing a common diagnostic standard for diabetes, glucose intolerance, and gestational diabetes, self-monitoring, and annual follow-ups, screening of asymptomatic and high-risk people, various treatment modalities including dietary and lifestyle modification, medical interventions, and early detection of complications with appropriate steps to arrest and reverse them. The focus was on diabetes education for people with diabetes, which by definition entails giving them the knowledge and resources necessary to make them an active member of the diabetes management team. However, the guidelines did not cover any methods for educating and enhancing the skills of PCPs and general practitioners, who are responsible for the majority of diabetes management in India. Because of inadequate emphasis given to diabetes throughout their undergraduate degrees, most doctors are unable to provide evidence-based therapy and must devote nearly 11.5 years to becoming experts in the field. Urban locations or

NATIONAL DIABETES PREVENTION PROGRAM

major cities are where the majority of these specialists are concentrated. According to estimates from research, there are around four times as many allopathic doctors per 10,000 people in metropolitan regions than there are in rural ones.

It is obvious that strict glycemic control and early insulin beginning might postpone the onset of diabetes-related problems; nevertheless, PCPs postpone insulin initiation because of their lack of or incomplete knowledge of insulin therapy. Building primary care physicians' capacity is therefore crucial to reduce the growing burden of diabetes.

Few organizations and institutions, both public and private, have begun diabetes education and capacity-building programs for PCPs in India after realizing the problems and difficulties. These innovative efforts require support and gratitude. These programs include 16 fellowships, 4 diplomas, 12 certificate programs, and 6 other diabetes training programs. The names and details of these courses are available in the paper - Mehra R, Vats S, Kumar R, *et al.* Emergence of diabetes education and capacity-building programs for primary care physicians in India. *J Family Med Prim Care.* 2022;11(3):839-846. doi:10.4103/jfmpc.jfmpc_669_21.

Some of the capacity-building programs are full-time and focus on diabetic fellowships or degrees. Such programs offer a profound understanding of the subject and hands-on experience, but one must leave their clinical practice in order to benefit from them and enroll in them. Additionally, there are very few universities offering these programs, as well as a very small annual admission capacity. Some of these organizations provide programs for online capacity-building. These online courses use live streaming or pre-recorded lectures as their primary teaching methods. Greater educational prospects can be attained through online courses, but they call for a certain amount of infrastructure and human resources. Due to poor internet connectivity, restricted access to digital media, and power outages in rural and isolated locations, the online learning environment has its own drawbacks in a country like India. Additionally, because online sessions are time-limited, participants have little opportunity to ask questions and get answers from the instructor or faculty. According to the DAWN2 survey, healthcare professionals strongly feel that the curriculum at the graduation level is not suitable to create the capacity of these medical graduates to efficiently treat diabetes at the community level. It is clear that the knowledge and abilities of PCPs in managing diabetes are being improved by these short-term capacity-building initiatives. Therefore, these capacity-building activities can significantly contribute to the development of freshly graduated professionals' abilities for better patient outcomes. These programs have a great chance of growing while best addressing the lack of expertise in countries with dense populations, like India. While strengthening the connections between community and already-existing government programs, they may show to be a sustainable model.

With medical science changing rapidly, all health care providers need to upgrade their skills and knowledge to manage conditions such as diabetes more effectively and efficiently. Therefore, customized training programs, if conceptualized, designed, and implemented correctly while taking into account the needs of the community and the physicians' clinical settings, can help in bridging the gap of trained healthcare professionals in diversely populated community setting such as India. The acquired knowledge and abilities can last for a very long period if a consistent effort is made. The knowledge gained from these training initiatives can be applied to the creation and implementation of comparable initiatives in other low- and middle-income nations that struggle with an alarming burden of non-communicable illnesses and trained health force shortage.

Resources:

Mehra R, Vats S, Kumar R, *et al.* Emergence of diabetes education and capacity-building programs for primary care physicians in India. *J Family Med Prim Care.* 2022;11(3):839-846. doi:10.4103/jfmpc.jfmpc_669_21

Diabetes Educator Tip of the Month

Contributed by
Name: Thavita Chhatri

Msc. Clinical Nutrition and Dietetics,
Certified Diabetes Educator

Ways to Raise Diabetes Awareness

With an increasing prevalence of diabetes and its complications all over the world, it becomes extremely important to raise awareness of prediabetes, type 2 diabetes prevention, and diabetes management to empower people to protect and improve their health. November is the biggest month for diabetes awareness as World Diabetes Day is held every year on November 14 with the simultaneous occurrence of diabetes-related events worldwide. Below are some tips that can support raising awareness of diabetes in society.

- **Plan a diabetes education event**

  Diabetes information sessions can be organized at a local level such as in a neighborhood, workplace, community, or school. A doctor, nurse, diabetes educator, or dietician can volunteer for the same. The prior distribution of brochures, and displaying posters and banners also encourage people's participation.

- **Discuss diabetes online by using social media and other digital tools**

  Social media is a good way to connect with friends, and families and reach out to new ones. Some of the simple ways to use social media platforms can be as follows:

  - Write blogs on diabetes with relevant information.
  - Share diabetes educational facts.
  - Conduct online sessions and encourage participation in the same.
  - Volunteer freely in the diabetes support group.
  - Update and share recent research on diabetes.

- **Wear the color 'blue' and help spread the awareness**

  Introduced in 2006 to give diabetes a common identity, an open blue circle is a worldwide symbol for diabetes by IDF (International Diabetes Federation). But not many are aware of what it means, including the ones who have diabetes. To promote the cause and inspire others to wear blue, one might also post pictures of their attire on social media. Together, these efforts surely can help us to reach out to those at risk and those living with diabetes to promote better health and quality of life.

Resources:

1. Awareness Campaigns. Centers for Disease Control and Prevention. Updated December 17, 2021. Accessed September 10, 2022. https://www.cdc.gov/diabetes/campaigns/index.html
2. The blue circle. International Diabetes Federation (IDF). Updated April 16, 2021. Accessed September 10, 2022. https://www.idf.org/who-we-are/about-idf/logo.html#:~:text=The%20blue%20circle%20is%20the,to%20raise%20awareness%20about%20diabetes

Super Food: Spinach

Spinach (Spinacia oleracea) belongs to the family Chenopodiaceae. It is widely cultivated across the world as it is relatively quick-growing as well as highly nutritious due to the presence of a variety of vitamins and minerals. Spinach is considered a medicinal plant and is widely used in traditional medicine due to the presence of active phytochemicals.

Nutritional benefits

- Low calorie
- High fiber
- Good source of vitamins like A, C, K, B6, B2
- Good source of folic acid and potassium
- Antioxidant property due to presence of lutein

Health benefits

- **Anti-diabetic:** Spinach is often consumed by people with diabetes due to its blood glucose lowering effect. Flavonoids like kaempferol, myricetin, quercetin, apigenin, and luteolin present in spinach are responsible for the anti-diabetic effect. Flavonoids support various pathways – regulate glucose metabolism in the liver, reduce apoptosis, improve β-cell proliferation and promote insulin secretion. Also, spinach is high in fiber and has very low carbohydrates. As a result, it is a great food for people having diabetes as it does not impact the blood glucose levels and gives good satiety.
- **Anti-bacterial:** Spinach extract is used as a preservative and a natural antibiotic in the food industry. The presence of polyphenols like para-coumaric acid, ferulic acid, and orthocoumaric acid are responsible for antibacterial activity.
- **Anti-osteoarthritis:** Usage of spinach leaves for osteoarthritis and arthritis (joint pains) in traditional medicine was common, due to its anti-inflammatory and antioxidant properties.
- **Anti-cancer effects:** Spinach intake is beneficial for various cancers like - ovarian, lung, prostatic, breast, and colon as it is a good source of various carotenoids, lipophilic active compounds like neoxanthin, lutein, zeaxanthin, and chlorophyll. Spinach glycoglycerolipids are also known to be beneficial for cancer.

How to consume?

Spinach is a commonly consumed vegetable. It is consumed raw or in cooked form. It is also stored by dehydration, canning, and freezing techniques.

It is consumed as a vegetable, sometimes it is added to soups, stews, and curries, used in making parathas, and sometimes added to some rice preparations. Raw spinach is added to smoothies, it is often mixed with other vegetables and consumed.

Recommended intake

100 g of spinach will give 24 kcals, 2.14 g proteins, 2 g carbohydrates, and 0.64 g of fat.

Resources:

1. Roughani, Afra & Miri, Seied Mehdi. Spinach: An important green leafy vegetable and medicinal herb. Feb 2019, the 2nd International Conference on Medicinal Plants, Organic Farming, Natural and Pharmaceutical Ingredients.
2. Al-Ishaq RK, Abotaleb M, Kubatka P, Kajo K, Büsselberg D. Flavonoids and Their Anti-Diabetic Effects: Cellular Mechanisms and Effects to Improve Blood Sugar Levels. *Biomolecules.* 2019;9(9):430. Published 2019 Sep 1. doi:10.3390/biom9090430

Recipe: Spinach Soup

Serves: 2

Ingredients	Amounts
Spinach (Palak) chopped	2 ½ cups
Onions (finely chopped)	½ cups
Garlic	2-3 cloves
Ghee	1 tsp
Milk	½ cup
Water	2 cups
Salt and pepper	To taste
1 cup: 250 mL; 1 tablespoon: 15 mL; 1 teaspoon: 5 mL	

Method

1. Heat ghee in a nonstick kadhai, add chopped onions, chopped garlic, and sauté on a medium flame for 2 minutes or till the onions turn translucent.
2. Add spinach and sauté on a medium flame for 1 minute.
3. Add 2 cups of water, mix well and cook on a medium flame for 5-7 minutes while stirring continuously.
4. Allow it to cool completely.
5. Once cooled, blend in a mixer to a smooth puree and transfer it to a kadhai.
6. Add milk to the spinach puree and mix well. Cook on a medium flame for 2 minutes while stirring occasionally.
7. Add salt and pepper and mix well, cook for one minute, and stir well.
8. Serve hot.

Word Search

Please find the words mentioned in the given grid. The words could be horizontal, vertical, or diagonal

Access to Diabetes Care

I	T	L	A	S	E	U	O	I	I	I	R	A	V
L	I	E	A	R	U	I	I	N	S	U	L	I	N
N	C	L	E	N	U	I	I	R	L	E	E	R	S
O	I	C	O	U	N	S	E	L	I	N	G	H	P
I	O	C	I	I	U	S	N	B	L	T	C	P	N
T	B	A	R	R	I	E	R	S	O	A	T	N	O
A	N	R	N	I	Y	U	L	N	N	I	H	I	T
C	R	N	S	S	I	I	M	I	I	T	L	N	G
U	O	P	I	N	N	I	P	I	A	U	R	P	S
D	N	A	C	N	I	S	R	S	T	O	R	A	N
E	V	O	L	U	T	I	O	N	I	I	I	S	I
F	N	I	M	T	T	I	C	I	L	D	R	S	N
S	E	L	F	M	O	N	I	T	O	R	I	N	G
E	N	S	N	A	I	C	I	S	Y	H	P	S	V

EVOLUTION
COUNSELING
SPINACH
SELF-MONITORING
SALT
PHYSICIANS
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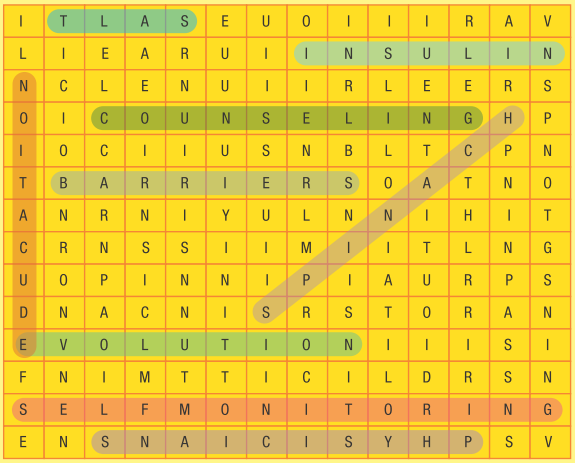
BARRIERS
EDUCATION



Patient Speaks

I am Siddharth Kumar, a 60-year-old man. I have been living with diabetes for the last 20 years. My doctor and diabetes educator have been great in guiding me and my blood glucose levels are well maintained now with their advice. However, when I was initially diagnosed, I was not aware of many things so I did not take my doctor's suggestions very seriously and was not as careful as I should have been. I did not visit my doctor regularly and neither did I do any of the follow-up tests recommended for me. I was not even regular with my prescribed medications.

My irregular habits and not following a healthy lifestyle resulted in my blood glucose levels not being in control at all. This I got to know during a random test that was conducted at my office and I was asked to visit my doctor immediately. Following further investigations recommended by my doctor, I was given a higher dose of medication as tests showed high blood glucose levels and I was advised to meet a diabetes educator (DE) to understand better my condition and how to manage it.

The DE took a detailed history and looked at my medical reports and doctor's prescription. She asked me about my diet and physical activity. The DE patiently explained to me more about my condition and the importance of going to the doctor regularly, doing my tests as well as following a healthy lifestyle with exercise. She made me understand the complications that I could develop if my blood glucose levels were not in control. She also recommended checking blood glucose levels regularly by self-monitoring. She explained that poorly controlled diabetes can cause nerve damage and poor circulation among other issues. She shared with me some patient-educative material that I could take home, read and learn more about the condition. The DE referred me to a dietitian to help me with improving my eating habits and understand better portion control.

I realized that by learning more about my condition I could understand better what changes I needed to make to keep my blood glucose in the target range and this benefitted me a lot. I also became confident about managing my diabetes by myself on a day-to-day basis. After talking to my DE, I also felt assured that I have access to the right knowledge and I could get all my doubts cleared which I used to hesitate to ask the doctor. I am very thankful to my DE for guiding me in the care I needed to take as well as for living a healthier lifestyle.

Beat Diabetes
Win Life

For screening people with High & Moderate Risk of Diabetes

Indian Diabetes Risk Score

Share this simple test with your family & Friends

Users can share it with their family & friends

Video on Suggestive Lifestyle Interventions to minimise risks - for each category

12 Languages

An awareness initiative by USV

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TO KNOW YOUR RISK OF DIABETES SCAN HERE

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For Screening people with High & Moderate Risk of Diabetes

Indian Diabetes Risk Score

TO KNOW YOUR RISK OF DIABETES SCAN HERE

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In T2DM Across Continum,

Start with

Glycomet®-GP 1/2

Metformin Hydrochloride 500 mg SR + Glimepiride 1/2 mg

Source: 1. JAPI 2020;68:51-55 2. Data on File, 3. Cureus 2020; 12(9): e10.7759/cureus.1070 4. Diabetes Technology & Therapeutics 2019, 2,79-84 5. Kalra, et al : Sulfonylurea and combinations: International Task Force. Indian J Endocr Metab 2018;22:132-57.

Prescribing information

Information: Metformin hydrochloride (as prolonged release) and glimepiride tablets. Glycomet-GP 0.5/Glycomet-GP 0.5 Forte/ Glycomet-GP 1/ Glycomet-GP 1/850/ Glycomet-GP 2/ Glycomet-GP 2/850/ Glycomet-GP 3/ Glycomet-GP 3/850/ Glycomet-GP 4/ Glycomet-GP 4/850/ Glycomet-GP 1 Forte/ Glycomet-GP 2 Forte/ Glycomet-GP 3 Forte/ Glycomet-GP 4 Forte Abridged Prescribing Information **Composition:** Glycomet GP 0.5mg: Each uncoated tablet contains metformin hydrochloride IP (as prolonged release form) 500mg and glimepiride IP 0.5mg • Glycomet GP 0.5 Forte: Each uncoated tablet contains metformin hydrochloride IP (as prolonged release form) 1000mg and glimepiride IP 0.5mg • Glycomet GP 1: Each uncoated tablet contains metformin hydrochloride IP (as prolonged release form) 500 mg and glimepiride IP 1 mg. • Glycomet GP 1/850: Each uncoated tablet contains metformin hydrochloride IP (as prolonged release form) 850 mg and glimepiride IP 1 mg. • Glycomet GP 2: Each uncoated tablet contains metformin hydrochloride IP (as prolonged release form) 500 mg and glimepiride IP 2 mg. • Glycomet GP 2/850: Each uncoated tablet contains metformin hydrochloride IP (as prolonged release form) 850 mg and glimepiride IP 2 mg • Glycomet GP 3: Each uncoated tablet contains metformin hydrochloride IP (as prolonged release form) 500 mg and glimepiride IP 3 mg. • Glycomet GP 3/850: Each uncoated tablet contains metformin hydrochloride IP (as prolonged release form) 850 mg and glimepiride IP 3 mg. • Glycomet GP 4: Each uncoated tablet contains metformin hydrochloride IP (as prolonged release form) 500 mg and glimepiride IP 4 mg. • Glycomet GP 4/850: Each uncoated tablet contains metformin hydrochloride IP (as prolonged release form) 850 mg and glimepiride IP 4 mg. • Glycomet GP 1 Forte: Each uncoated tablet contains metformin hydrochloride IP (as prolonged release form) 1000mg and glimepiride IP 1mg. • Glycomet GP 2 Forte: Each uncoated tablet contains metformin hydrochloride IP (as prolonged release form) 1000mg and glimepiride IP 2mg. • Glycomet GP 3 Forte: Each uncoated tablet contains metformin hydrochloride IP (as prolonged release form) 1000mg and glimepiride IP 3mg. • Glycomet GP 4 Forte: Each uncoated tablet contains metformin hydrochloride IP (as prolonged release form) 1000mg and glimepiride IP mg. **Indications:** Glycomet GP is indicated for the management of patients with type 2 diabetes mellitus (T2DM) when diet, exercise and single agent (metformin hydrochloride or glimepiride alone) do not result in adequate glycemic control. **Dosage and Administration:** Dosage of Glycomet GP should be individualized on the basis of effectiveness and tolerability while not exceeding the maximum recommended daily dose of glimepiride 8mg and metformin 2000 mg. **Initial dose:** 1 tablet of Glycomet GP should be administered once daily during breakfast or with the first main meal. Do not crush or chew the tablet. In several cases the tablet may remain intact during transit through the gastrointestinal (GI) tract and will be eliminated in feces as hydrated mass (ghost matrix). Patients should be advised that this is normal as all drug components have already been released during GI transit. **Contraindications:** In patients hypersensitive to glimepiride, other sulfonylureas, other sulfonamides, metformin or any of the excipients of Glycomet GP; pregnancy and lactation; diabetic ketoacidosis, diabetic pre-coma, in patients with eGFR<30 ml/min/ 1.73 m2, acute conditions with the potential to alter renal function (dehydration, severe infection, shock, intravascular administration of iodinated contrast agents), acute or chronic disease which may cause tissue hypoxia (myocardial infarction, shock, cardiac/respiratory failure) hepatic insufficiency, acute alcohol intoxication, alcoholism. **Warnings:** Keep out of reach of children. Patient should be advised to report promptly exceptional stress situations (e.g. trauma, surgery, febrile infections). Blood glucose regulation may deteriorate and a temporary change to insulin may be necessary to maintain good metabolic control. In case of lactic acidosis, patient should be hospitalized immediately. **Precautions:** In the initial weeks of treatment, the risk of hypoglycemia may be increased and necessitates especially careful monitoring. Serum creatinine levels should be determined before initiating treatment and regularly thereafter: at least annually in patients with normal renal function. Intravascular contrast studies with iodinated materials can lead to acute alteration of renal function. In patients in whom such study is planned, Glycomet GP should be temporarily discontinued at the time of or prior to the procedure, and withheld for 48 hours subsequent to the procedure and reinstituted only after renal function has been re-evaluated and found to be normal. Use of Glycomet GP should be discontinued 48 hours before any surgical procedure. **Adverse reactions:** For glimepiride - hypoglycaemia; temporary visual impairment; GI symptoms like nausea, vomiting, abdominal pain, diarrhoea may occur; increased liver enzymes, cholestasis and jaundice may occur; allergic reactions may occur occasionally. For metformin – GI symptoms like nausea, vomiting, abdominal pain or discomfort may occur.

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