Tap Your Meals

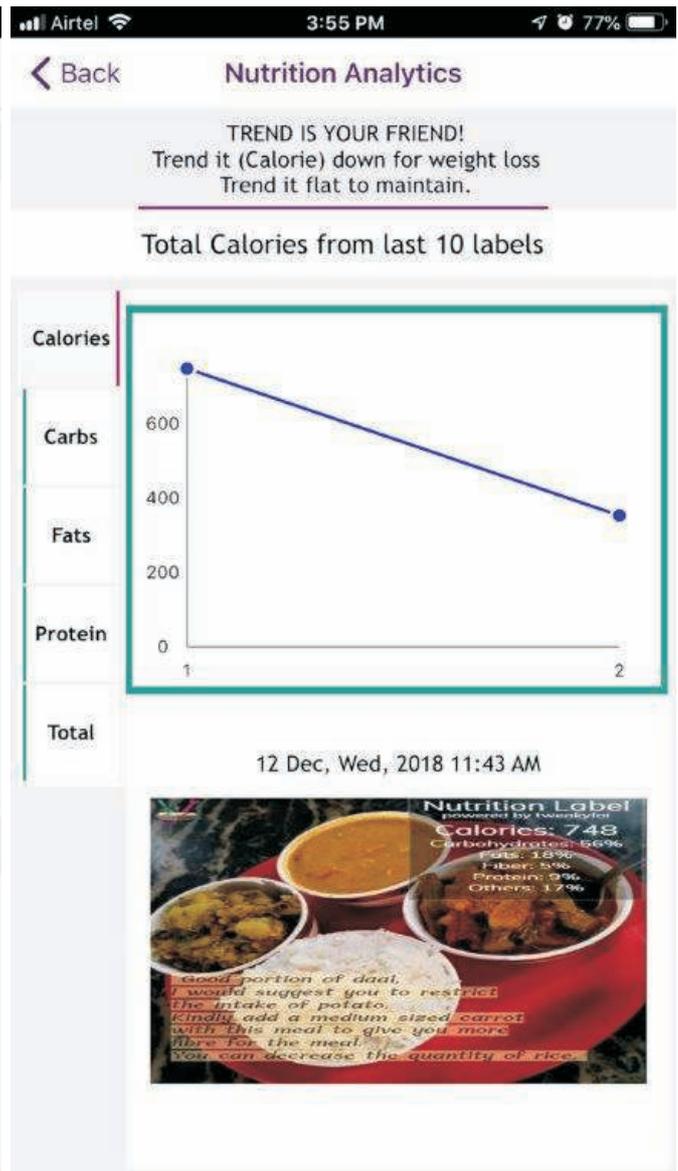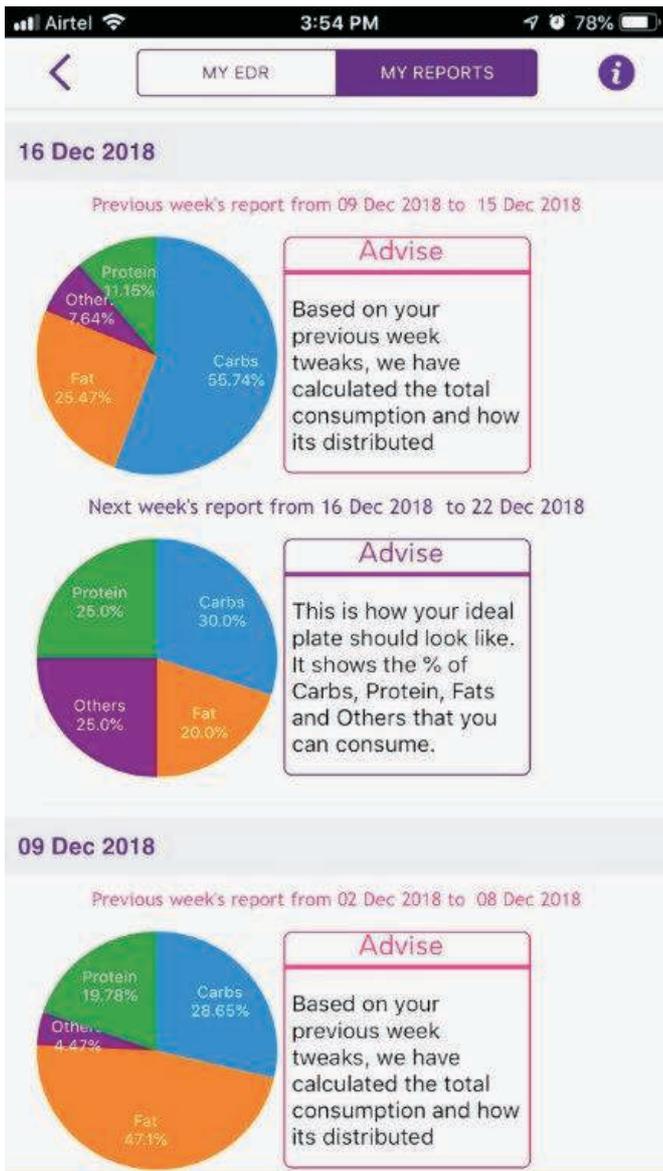**The Diabetes Health Team** reviews a new application that helps you watch your meal portion.

Artificial intelligence and healthcare

Artificial Intelligence or AI has been a game changer since the past few years, especially in the healthcare sector. From hologram consultations to blood glucose meters, AI has brought a paradigm shift in providing better and real-time healthcare services. It has enabled the doctors, nurses and other caregivers such as physiotherapists and dieticians to keep a track of their patients and provide them on-going care from remote areas based on case history, intelligent graphs and quantified reports. AI provides the ease of analysing a lot of data or images and helps to understand the case from different perspectives. It offers the flexibility of providing generalised as well as specialised care. We are only scratching the surface now. As we train more and more, AI will be able to do a lot more.

Tweak & Eat app - an introduction

Tweak & Eat is an innovative application and service that connects the user to various dieticians who provide real-time, 'just-before-eat' personalised advice. This helps the users to achieve their health goals, one meal at a time. *Tweak & Eat* app provides personalised, real-time diet advice at the point of consumption, i.e. before the food is eaten.

The user needs to upload a picture of the food plate on the app interface and the picture can be viewed by a dietician. The picture is then reviewed by a dietician after consulting the user's case history and previous diet recommendations. The app allows the dietician to review the food plate

MY EDR   MY REPORTS   ⓘ

16 Dec 2018

Previous week's report from 09 Dec 2018 to 15 Dec 2018

Protein 11.15%
Other 7.64%
Fat 25.47%
Carbs 55.74%

Advise

Based on your previous week tweaks, we have calculated the total consumption and how its distributed

Next week's report from 16 Dec 2018 to 22 Dec 2018

Protein 25.0%
Carbs 30.0%
Others 25.0%
Fat 20.0%

Advise

This is how your ideal plate should look like. It shows the % of Carbs, Protein, Fats and Others that you can consume.

09 Dec 2018

Previous week's report from 02 Dec 2018 to 08 Dec 2018

Protein 19.78%
Carbs 28.65%
Other 4.47%
Fat 47.1%

Advise

Based on your previous week tweaks, we have calculated the total consumption and how its distributed

‹ Back   **Nutrition Analytics**

TREND IS YOUR FRIEND!
Trend it (Calorie) down for weight loss
Trend it flat to maintain.

Total Calories from last 10 labels

Calories

Carbs

Fats

Protein

Total

12 Dec, Wed, 2018 11:43 AM

Nutrition Label
powered by tweaknEat
Calories: 748
Carbohydrates: 56%
Fats: 18%
Fiber: 5%
Protein: 9%
Others: 17%

Good portion of daal,
I would suggest you to restrict
the intake of potato.
Kindly add a medium sized carrot
with this meal to give you more
fibre for the meal.
You can decrease the quantity of rice.

and provide real-time personalised '*Tweak*' to the meal within a minute. This helps the user to follow the 'Tweak' towards a healthy eating. It's like having a dietician looking over the shoulder at every meal! The app allows real-time adjustments to the meals, on the go and before eating, which is more beneficial than learning about the meal after eating.

The artificial intelligence present in *Tweak & Eat* app helps the dieticians to analyse the food plate closely and provide real-time personalised feedback. It also keeps a track of the previous suggestions and calculates

weekly consumption of carbohydrates, proteins and fats. This helps the dietician to suggest changes to the diet for a healthy and mindful eating experience.

Tweak & Eat app provides features such as the nutritive value of various foods, nutrition graph based on consumption, healthy recipes and calorie count. The app also allows the user to share his or her progress report with family, close groups and other users of the platform. This motivates the user to follow his or her diet and make better diet choices.

The basic *Tweak* function and other

functions like *Tweak Wall* and *Recipe Wall* are available for free of cost. Certain other features like nutrition labels, diet plans, detox plans, etc. are expected to range between Rs 199/- for a short three-day service to Rs 3,000/- per year for a long-term service package. The users can choose and subscribe to the desired services provided by various healthcare providers such as fitness experts and dieticians.

Tweak & Eat app can be synced with all fitness trackers and devices such as *Fitbit, Apple Watch, Samsung Fit.*, via industry-standard interfaces. The app can be easily accessed on all the recent versions of Android and Apple iOS platforms.

Salient features

The salient features of the app are:

Provides smart solutions - Tweakify® is an artificial intelligence (AI) based platform of the app and is enabled to identify maximum food items from different cuisines. Tweakify® is being enhanced to automate many tweak activities such as generating nutrition labels, providing real-time inputs to the dietician and real-time feedback to the users. The app creates a database of all the pictures and information provided for each food plate which can be easily accessed at any time.

A multitude of services - The app provides a multitude of services from various dieticians and other healthcare providers such as fitness experts. The services include personalised goal setting and diet planning, proactive interaction between a user and healthcare professional and providing information to help users achieve specific health goals such as

managing weight, blood sugar levels, cholesterol levels and blood pressure.

Real-time information - The app provides real-time information on the nutritive labels and calorie, carbohydrate, protein and fat content of each meal. This helps the users to know the number of various nutrients they are consuming with every food plate. The app also provides cumulative calories, percentage and carbohydrate, protein and fat consumption trends in the form of graphs based on the number of labels generated in a time period. This helps the dietician to target certain components for
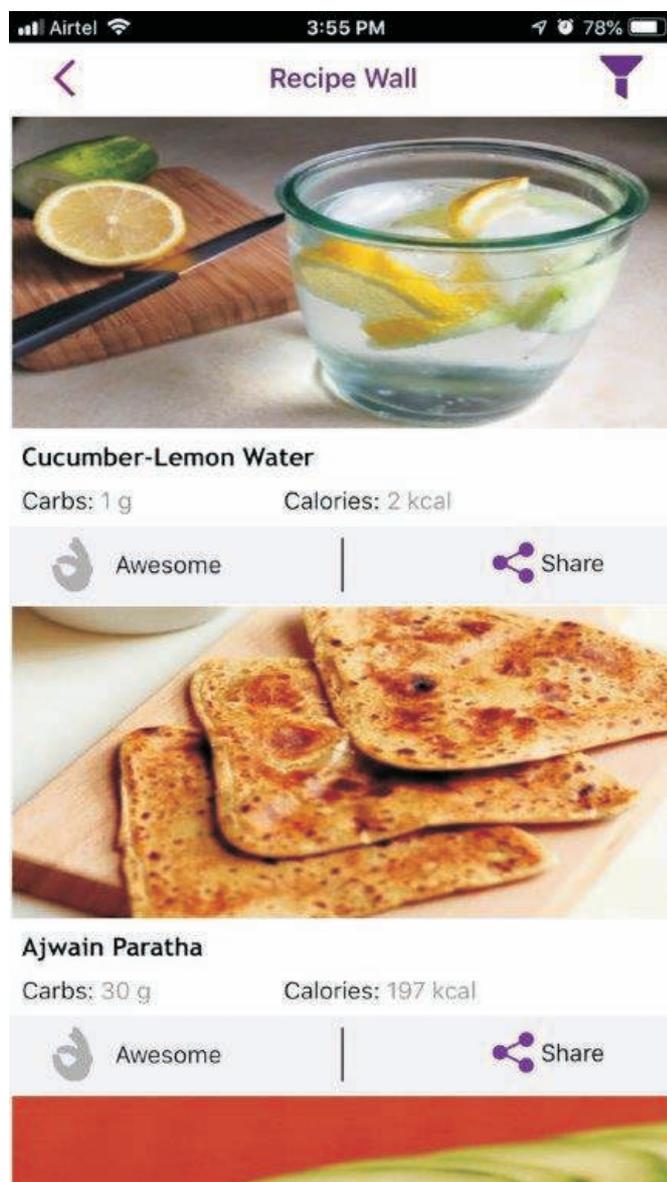
improvement. For example, to lower the carbs intake, a dietician may look at the carbohydrate consumption trend of the user and make appropriate adjustments. The user can see his or her trends and can take corrective measures if the trend is going upwards.

Personalised diet plans - Personalised diet plans are provided by *Tweakify®* AI platform for people who require a diet plan to accomplish a specific health goal. Upon registration on the app, a dietician is assigned to the user for consultation and advice. The app generates a meal plan and allows the assigned dietician to discuss the diet preferences of the user to prepare a final meal plan. The app provides one week's time to the user to discuss his or her meal plan with the dietician to get clarifications or to change the plan if needed.

TweTox - The app provides a short-term detox program recommended by a dietician to help recover from the extra food intake during a festival or an event like a wedding or birthday. The dietician may also recommend a detox program if the user

wants to get rid of the effect of some of the toxins in everyday diet.

Tweak Wall - This offers the users a platform to share and interact with other users about their fitness goals and meal plans. This motivates the user to take charge of his or her health and achieve their fitness goals. The app also offers a platform for discussion among the user community to discuss different diet and health-related topics.

Benefits for doctors

Diet plays an important role in managing various health conditions such as hypertension and Diabetes. People with Diabetes are recommended to check their blood sugar levels regularly and to be watchful of their diet. This includes calorie counting and checking the nutritive value of the foods. *Tweak & Eat* app keeps a track of the diet of the users and creates a database of the pictures of the food plates shared by the user. It provides quantitative information in the form of graphs about the calorie intake of the users. All the meals eaten are recorded in the user's personal record (*My EDR*), which the doctors and dieticians can view and offer further advice to improve health and better manage his or her condition.

Benefits for patients

Many of the issues faced by people with Diabetes can be managed through proper diet, for example, lowering carbohydrate intake and portion control. Most people are aware of this but are unable to figure out what to eat and what to avoid, in each meal. *Tweak & Eat* app addresses this unmet need by informing the users how they can modify their food plate before eating in order to prevent post-meal blood

sugar spikes. The app allows the user to communicate with a dietician with regards to his or her eating patterns and how to change them. The app offers the users to look at their reports and understand better about their dietary requirements. This increases the awareness among the users and helps them to take charge of their health.

To conclude

Tweak & Eat app provides real-time information about a user's diet and helps him or her to understand how diet can be modified to improve health. The varied features provided by the app helps the users and caregivers to understand they dietary cause of health conditions such as obesity, uncontrolled blood sugar levels and high cholesterol levels. It helps implement changes meal by meal to achieve the targeted health goal. This helps improve the overall well-being of a person. It is yet to be seen how the app can be useful in a long-term health care regime.

Disclaimer: The Editorial Team of Diabetes Health magazine has no conflict of interest to disclose. We do not endorse, support or recommend any particular product, service or device. Readers are requested to seek medical advice before using any application or device.

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Cartoon