Indian people are at increased risk of developing diabetes. An Indian diet is traditionally high in oils and carbohydrates which can make management of diabetes more challenging. Making small changes to food choices can help with weight management and improve blood glucose levels. Below you will find some key points to help improve your understanding of Indian food.

Indian Tradition
- Religions and cultural customs have a huge effect on the diet of Indians
- Land of many religious groups – Hindus, Muslims, Sikhs, Jews, Christians, Buddhists
- More than 15 languages are spoken in different regions in India. Hindi is the official language of India
- 80% of the population lives in villages
- 70% of the population is dependent on agriculture
- Gujarati’s are from the state of Gujarat in Western India
- Woman cook, traditional Indian men have limited knowledge of food preparation and cooking.

Typical Indian Meal Pattern
- **Formal occasions:** one rice dish, one meat/chicken/fish curry or dal (lentil curry), one to two vegetable curry, chapati/roti/nan (Indian bread), pickles, papadums, raita (yoghurt sauce), salad and a sweet dish
  - Indian sweets are very rich, made from condensed milk, full cream milk powder, cereals and vegetables together with a large amount of sugar and ghee; they may also be garnished with dried fruits and nuts. Often served to visitors as a snack.
- **Daily meal pattern:** Rice and/or chapati with either a meat/ chicken/ fish curry or dal, one vegetable curry, salad, 2-3 pickles, papadums
  - Served at the same time – not in courses
  - In New Zealand the number of items served will depend on how busy the household is
  - Pattern of meals and food preparation is different in different regions but the most commonly used foods are cereals and pulses
  - The cereal or rice content of the meal is regarded as the main dish
  - The type and number of side dishes varies from region to region
  - Normally no tea or coffee is taken after meals.
**Carbohydrate**
- Some meals can be high in carbohydrate e.g. rice, chapati, dal, potato curry, raita
- Portions of rice and chapati can be large.

**Rice**
- Rice served as plain boiled rice or elaborate preparations made with nuts and vegetables added
- Salt and ghee (clarified butter) or butter are mostly added to plain rice. Often ghee is poured onto the rice after it is cooked
- Rice served with either a meat/chicken/fish curry, dal or a yoghurt curry called “kadhi”.

**Chapati and Roti**
- Chapati and roti are the same name for Indian bread made from wheat flour
- In New Zealand white flour used or 50:50 white and wholemeal flour, however the wholemeal flour is usually sieved and the fibre thrown away
- Butter, oil or ghee is added when preparing the chapati dough
- Cooked dry on a frying pan and once cooked butter or ghee is spread on top
- North Indians eat big thick chapati
- Thin chapati are common with Gujaratis
- Paratha are shallow fried chapati
- Puri are deep fried and smaller chapati
- Nan are leavened chapati cooked in an oven or tandoor
- Puri, paratha and nan are usually served to guests.

**Pulses**
- More than 60 different varieties of lentils in India
- Cooked in a variety of ways – savoury or sweet or in salad
- Dal is a dish made with dried lentils/peas/beans that are stripped of their outer hull and split
- Often deep fried snacks are made from lentils
- While frying if oil is not the right temperature they will soak up a lot of extra oil
- Papadum are made from lentil or rice flour – either deep fried or roasted.

**Sugar**
- Gujarati’s use sugar in most of their curries and dal
- 1–2 tablespoons sugar often added to a curry and more in sweet and sour dishes or lemon dishes
- Most Gujarati’s will make tea with half water and half milk and always with sugar
- Jaggery which is called ‘Gud or Gor’ is made out of boiled sugar cane juice
- Jaggery is used by people with diabetes instead of sugar but it will also increase blood glucose levels.

**Fat**
- Oil or ghee (clarified butter) is the base for all curries
- Curries with sautéed onions contains more oil/ghee to prevent the onions burning
- The amount of oil or ghee used will vary, anywhere between 2 tablespoons to ¼ cup in a curry
- Peanut oil used in India but in New Zealand either soya bean or canola oil used
- North Indians mostly use ghee in cooking
- Sweet dishes are made using ghee
- Snacks are mostly deep fried
- Full fat milk is most common.
Fruit and Vegetables
- Consumption of fruit varies from family to family. Bananas are popular.
- Consumption of salads varies from family to family.
- Salt is sprinkled over salad.
- Vegetables are always served in a curry sauce rather than served plain.
- Taro leaves, spinach and silverbeet or pulses like mung beans are sometimes added to meat dishes.
- Courgettes are sometimes added to chickpea and dal.
- Pumpkin or carrots are sometimes added to dal.

Spices/condiments
- Commonly used spices are chillies – fresh/dried, turmeric, coriander, cumin, mustard seeds, garlic, cardamom, cinnamon, cloves, pepper, garam masala, garlic, ginger, salt, sugar, jaggery, tamarind pulp, lemon juice.
- Yoghurt is usually homemade and eaten in large quantities but never sweetened unless used as a sweet dish.
- Raita is a yoghurt sauce seasoned with spices/herbs and raw vegetables added e.g. cucumber.
- Most Indian pickles are preserved in oil, while some contain a lot of sugar or salt.

Cooking methods
- Pressure cooker is often used for speed.
- Stove top, steaming, baking or microwaving.
- Shallow frying or deep frying.

Tips to remember when working with Indian people
- Always include the woman in the discussions about food.
- It is easier to break traditions with the young.
- Rice or chapati are the foundation of a meal and an Indian cannot sit down to meat and vegetables alone.
- Portion size is important.
- Ask what food vegetarians eat e.g. some will eat eggs.
- The whole family can eat healthy foods, it’s not just for the person with diabetes.

To improve health content of meals
✔ Use a non-stick fry pan.
✔ Encourage use of pressure cooker as items don’t stick.
✔ Add water for extra moisture instead of extra oil.
✔ Discourage use of ghee/butter on chapati.
✔ Discourage addition of ghee/butter/oil to rice.
✔ Paratha (shallow fried chapati) and Puris (deep fried chapati) should be included on special occasions only.
✔ Replace deep fried snacks with a healthier option.
✔ Reduce use of Indian sweets.
✔ Encourage use of lower fat milk.
✔ Encourage addition of vegetables such as taro leaves, spinach, silverbeet to meat dishes or carrots, pumpkin to dal.
✔ Encourage greater use of salads e.g. tomatoes, cucumber, onion.
✔ Encourage use of artificial sweetener or sugar replacement.
Influences on food choices

1. **The area from which they originate** – determines the staple foods eaten and the foods with which they are familiar. North Indians eat more wheat products while South Indians including Sri Lankan predominantly eat rice and dishes made from rice. This is because of the higher rainfall and plentiful, hence cheaper supply of rice.

2. **Family’s socio-economic status** – higher socio-economic status use more ghee, oil, nuts and fried foods (as they can afford it).

3. **The religious group to which they belong** – important in determining which foods are taboo and how and when they should fast.

Religion

- Religious and cultural customs have a profound effect on the diets of Indians, especially among women and girls.
- Most common Indian religions in New Zealand are Islam, Hinduism and Sikhism.
- **Muslims** are followers of Islam:
  - Believe in one god, Allah and pray 5 times.
  - Follow the holy book “Koran”, which lays down a number of rules concerning foods – halal meat, fish with scales, no pork.
  - Not allowed to drink alcohol.
  - Muslims from adolescence until old age fast for Ramadan; ninth month of the lunar year. Fast lasts 30 days during which no food or liquid may be taken between dawn and sunset. Young children, very old and those who are ill are exempted from this fast. Pregnant and lactating women are granted temporary exemption, but they are expected to fast later in the year.
- **Hindus** are followers of Hinduism:
  - Believe in reincarnation and many gods.
  - Follow a strict set of dietary regulations.
  - Believe in non-violence against any living thing and many follow vegetarianism.
  - Vegetarians eat no meat or fish but milk and yoghurt are consumed freely.
  - The cow is a religious symbol and slaughter of cow is banned under Indian constitution.
  - In India McDonalds doesn’t serve beef and some Pizza Hutt stores serve vegetarian pizzas only.
  - Mostly women do all cooking.
  - Hindus practice a unique form of fasting largely determined by the individual:
    - Many fast for important religious days, which are mainly the birthdays of a God.
    - Some fast every 15 days to mark the waxing and waning of the moon.
    - Some fast 1 to 2 specified days in every week. It is also widely believed that fasting can determine the course of event thus a woman may fast to make her sick child better.
    - Hindu fasting takes two forms:
      1. Involves eating only one normal meal during the day restricting consumption at other meals to fruit and drinks.
      2. Involves eating only potatoes, kumara, yam and sago for the day.
- **Sikhs** are followers of Sikhism:
  - Reformist sect of Hinduism.
  - Share many of their beliefs and ideas with Hindus.
  - Unlike Hindus, they believe in one God.