

# Suggested Operating procedure for Yangtou village

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## Objectives

The primary objective is to help the millions of sufferers of type 2 diabetes by providing a farm stay system for reversing diabetes by diet, exercise and atmosphere.

It may also help sufferers of the many other chronic diseases such as heart attacks, strokes, gout, dementia etc. have similar root causes particularly being overweight from excess insulin.

It can provide a model system which can be widely adopted both in China and other countries.

It can act as a demonstration of an improved farming and food systems which focus on community health rather than profits for a few.

It could also help improve the living standard in rural area reduce social inequality and reduce the population drift from rural to urban areas.

People will naturally contribute time and effort to help solve a critical health epidemic but the scale of diabetes is so huge that relying on good will is not enough to solve the problem - everyone involved in this project should receive rewards for their efforts - past and current.

## Contributors to the diabetes epidemic

The three main root causes of diabetes are :-

- Disruption of the controlling hormone system, which is largely situated in the gut and controls body functions such as digestion, appetite, and activity levels leading to excess fat being stored through the body and particularly the vital organs of the liver and pancreas.
- Insulin resistance from excess fat blocking transfer of glucose to the muscles and liver.
- Psychological stress leading to excess cortisone which stimulated higher glucose levels in the blood.
- Genes and epigenetics play an important part in diabetes but do not cause diabetes rather they make a person more or less susceptible to becoming diabetic.

## Can diabetes be reversed

It is not possible to reverse diabetes in a short farm stay of say two weeks - but it is possible to educate clients on the dietary, physical activity and emotional tranquillity which can lead to long term remission from diabetes.

Diabetes is not an infectious disease so it is not valid to talk about a cure (as in curing an infection) but many people can have their diabetes reversed so they are no longer diabetic and in need of diabetic medication.

There is a distribution of vulnerability to diabetes - a few people are totally resistant - most are susceptible to becoming diabetic from a bad diet while few are high susceptible and a reversal may not be possible.

The vast majority of the population can reverse their diabetes but will need to manage their diet, exercise and stress levels to prevent reoccurrences.

Diabetes is a two stage process. Initially the muscle and organs become clogged with fat which is seen as insulin resistance. In these early stages the pancreas will make more insulin which will maintain the blood glucose level so there are few signs of diabetes.

But the function of insulin is to allow the transport of glucose into the cells and organs where it can be stored as fat. Unless this fat is burned off insulin resistance will increase and fat will eventually clog the pancreas so it is no longer able to produce more insulin. This is the second stage of diabetes which leads to severe problems.

If the food intake is restricted the body should naturally burn off this fat so diabetes should be reversed. The difficulty is that our bodies have evolved to survive through food shortages so has developed mechanism to hold onto this energy store for as long as possible for example by restricting physical activity.

Overcoming this desire of the body to hold onto energy is the most difficult part of reversing diabetes.

## **How it works - food**

Food is the most important tool in reversing diabetes.

### **Step 1 restoring gut biology**

The first priority is to restore the gut biology which may have been compromised by toxic chemicals and inappropriate food consumption.

It can provide the pro and pre biotics needed for gut health which controls many of the body functions.

The Gbiota system was developed to restore gut biology. In essence plants are irrigated by subsurface irrigation pipes through which a compost tea rich in biological activity flows. This was originally developed to the dry conditions in Australia and may need a little fine tuning for the wetter conditions in China but the basic principles are still valid.

It is important that the plants are free of toxic chemicals which are now widely used however techniques like companion planting allow plant to be grown while still maintain production levels.

Many plants - both wild and cultivated - are beneficial in reversing diabetes (and general health).

No doubt local farmers already have expertise in these area but the growing techniques need to be refined to incorporate both these existing and permaculture style growing techniques to provide quality food for the clients.

A program to refine the growing system and ensure the local farmers adopt these techniques is needed.

## **Step 2 food counselling and burning up the blocking fat**

Much of the medical profession say that diabetes is not reversible - if people continue to drink sugar loaded soda and eat sugar and carb loaded foods they are absolutely right.

Bad diet and lack of exercise caused diabetes and good diet and exercise is way to reverse diabetes. But showing pictures of rotting feet and telling them they will go blind and die young is not the way of convincing people to change their life style. People simply tune out to bad news and the worse the news the more they tune out.

The message must be positive and achievable - offering an improved sex life may be a bit simplistic even if true a skilled approach an individual basis is needed. Unfortunately the scale of the diabetes epidemic does not give doctors to give their patients the individual attention needed.

But an empathetic carer with a little training can work wonders.

It does required basic physical requirements like good food which is skilfully prepared (cooking skills) are an important part of the program - the food must taste good or the clients simply won't eat it.

So what is the message that the carers need to give?

Insulin resistance - which is the root cause of diabetes - is caused by fat blocking glucose entering muscles and the organs simply because they are already full of fat.

Medical text may say that the body will naturally burn up this fat if the food intake is reduced to less than energy consumption. Unfortunately life is not so simple. It has been shown that water fasting (no food at all) for several weeks will reverse diabetes. This is extremes and not many people are able to do this.

Our bodies have evolved to survive periods of food deprivation so will naturally avoid releasing this fat and people are not animals in a pen whose food intake can be controlled by force. The real world challenge is to burn of this blocking fat in a way which is acceptable to the majority of people - they need to be willing to undertake the changes.

Fast acting carbohydrates (high glycaemic foods) sugars and processed carbohydrates need to be severely cut. But sugar is addictive but it does not take much time to cure this addiction.

The job of the carer in the first week is to advice a restricted diet to start the process of burning up the excess fat in the body and curing the addiction.

The job of the carer is to help the client through this difficult phase. It can help to have a partner of buddy involved for immediate mutual support and being part of a wider group going through a similar experience is even more help. (The partner of buddy

system is also important to watch for low blood sugars, the village needs an emergency link to medical help in case of hypoglycaemia).

One job of the carer is to work with the client on a one to one basis to develop a plan to change the diet. Total fasting may be the quickest way of burning of the fat but intermittent fasting (particularly the daily eating window approach) is still very effective.

Simply cutting out high glycaemic foods is very demanding on the client so a substitution approach is easier to handle. The keto diet is becoming very popular but many people find it too extreme and difficult to stick to. There is also concern that cutting out a major food group (carbs) is really a good idea. The carer can work with the client to see if they are up to a full keto diet.

A much more practical approach is to adopt a plant based diet largely based on low glycaemic vegetables. A purely vegan diet can be difficult to handle but incorporating some eggs and fish and some meat can be almost as effective and a lot easier to stick to.

### **Continuous blood sugar monitoring**

Continuous blood sugar monitoring is a particularly effective way of establishing a viable diet. It immediately shows which food cause blood sugar spikes and by looking at how rapidly the sugar levels drop and the base level indicated the level of insulin resistance.

Carers can be quickly trained in the application of the sensors and how to interpret the results. But it may be better to let the client work out for themselves the diet that suits them best.

Rather than the carer controlling the amount of food a buffet style allows the client to choose what they want to eat and see the effect for themselves. It is best that they have to get up to the buffet and photo the food they take (this stops sneaky picking).

The carer can then work with the client to help the client decide what the most suitable diet is for them.

### **Exercise and activity**

My experience is that exercise has a profound effect on blood sugar levels. The carer can work with the client to develop a combination of intermittent fasting and exercise.

The reality is that if you are going to burn of fat then there is no alternative to enduring some period of hunger.

This is the sort of schedule which may be the starting point for discussion between the carer and client.

Wake up and immediately go for a walk.

At say 8 am participate in some classic Chinese group dancing with music. (In my experience this takes you mind of feeling hungry.)

A good breakfast at 9 am

Work on the farm to learn growing techniques and to get physical activity.

About 12 have lunch which should be the main meal of the day followed by free time (for a sleep)

About 4 pm have a light snack followed by more dancing or walking.

This basically follows the popular 8:16 fasting schedule but you do not feel hungry in the evening but in the morning you are occupied so have no time to think about being hungry.

### **Avoiding stress**

The continuous blood sugar monitoring has shown just how significant stress is. It releases cortisone into the blood stream and blood sugar levels sky rocket.

There are various techniques like yoga and meditation which are recommended for relaxation and should be offered (but they have not worked for me).

I have found that being part of a group activity - particularly synchronised dancing - is a good way to reduce stress.

### **Business structure**

Some form of business structure is required and as the Chinese are the most successful trading nation on the planet I am reserved about making comments.

But nevertheless I see that an overall manager is needed who welcomes new clients and is immediately available to any client should any problems arise.

Then under him or her there are several functions which may need their own leader these are ;-

Farming and food growing

Food preparation and cooking

Carers

Activity organisers