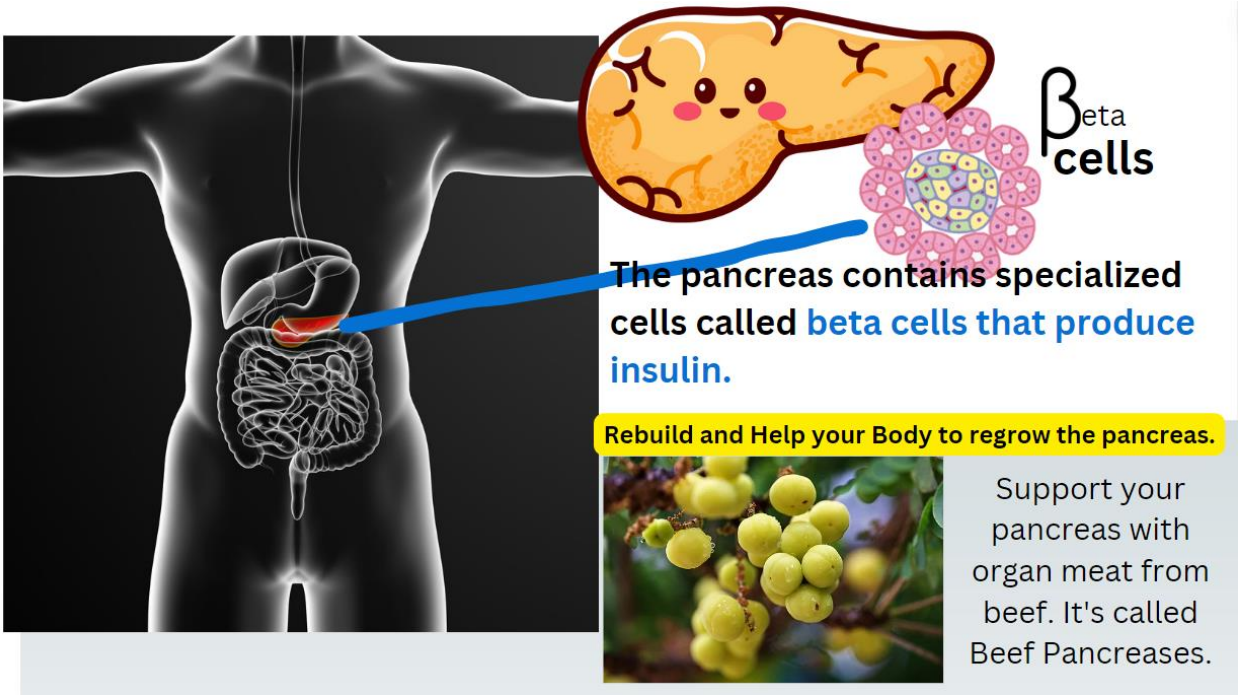
A Case in Point for Insulin and Cells

Background:

Insulin is essential for allowing glucose and other nutrients to enter cells. If a **cell is deprived of glucose** despite having **glucose in the bloodstream**, it may be an indication that insulin is not functioning effectively. This scenario often manifests as high blood glucose levels, observable through a finger test (glucose/sugar level test), even upon waking in the morning without having eaten, known as the dawn phenomenon. At this time your blood sugar level is high.



Concept 1: High Blood Glucose and Cellular Glucose Uptake

High glucose levels in the blood can mean that cells are not receiving the glucose they need. This may occur because the cells do not require glucose at certain times, such as during sleep. At night, not all of the 30 to 50 to 100 trillion cells in the body need glucose, thus the body doesn't require a high quantity of glucose. It's important to monitor glucose intake in the evening. Light evening exercise can help consume extra glucose and prevent high glucose levels during rest. (This opposite is also true, much activity will require much more glucose and then you can get “burn” out and feel low.. when the sugar level gets too low)

If excess glucose circulates while many cells are inactive, liver cells, which remain active at night, will store the surplus glucose. This stored glucose is released early in the morning, typically between 4 to 5 AM, ensuring you wake up feeling not hungry or tired, as the liver releases the stored glucose.

Concept 2: Insulin and Glucose Entry into Cells

If you have normal or elevated blood glucose levels but still feel unwell, it is crucial to determine if glucose is entering your cells efficiently. Insulin is the key that unlocks cell doors to allow glucose in. **\ Getting your fasted insulin blood work is critical \ and any other type of measurement for insulin level can act as data to inform the person about their pancreas production of insulin.**

Adequate insulin levels are necessary to facilitate this process. If your prescribed medications, such as those starting with "M" or "D,". Using the M drug you don't observe effectively managing your condition, using D drug seems to be helping to manage the glucose level much more efficiently.

Mechanism of Action:

The D Drug -Sulfonylureas: These drugs stimulate the beta cells in **the pancreas to produce more insulin,** directly increasing insulin levels and lowering blood sugar.

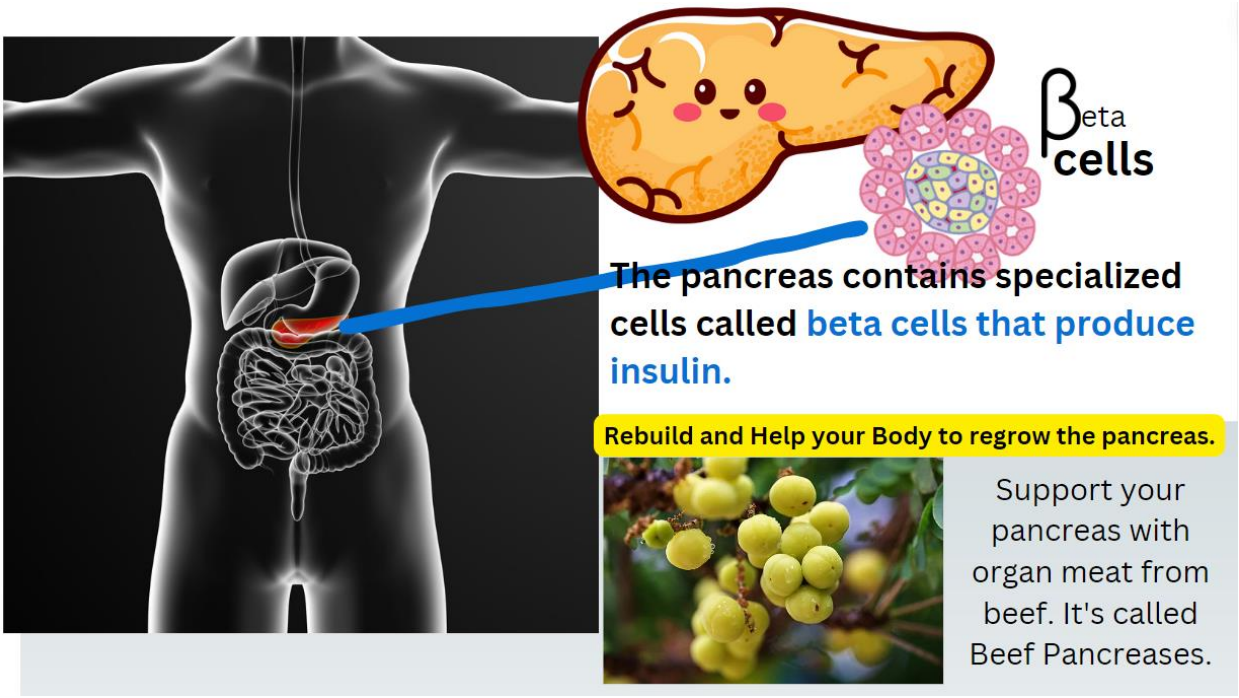
- When taken, they can normalize sugar levels, suggesting that insulin production may be the issue.
- Consider supporting pancreatic health through diet and supplements. Research indicates that **Damsel** (Phyllanthus acidus) may improve pancreatic function and restore beta cells:
    - Phyllanthus acidus (Damsel) Research
    - Eating beef organs, specifically the pancreas, can potentially support human pancreatic function: Beef Pancreas Supplement.

The M drug - Metformin: This medication primarily **reduces glucose production by the liver and improves the body's sensitivity to insulin,** rather than increasing insulin production directly.

So you may understand that the M drug does not work or make a difference because its job to stop Liver from releasing the stored glucose. That is ok! But it does not work because you

have eaten and when you eat the sugar level get spike, here there is not need for liver to release glucose, because the GUT has sent glucose to the blood directly.

So the focus on the pancreas to crease effective amount of insulin may be the main focus - and this is why it may be important to focus on the pancreas and it beta cells.



You continue to use your medication.

However, you need to focus on getting the organs functioning back to normal levels. You will also want to ensure that your cells are getting the right structural nutrients that is the fatty acids: **Omega 3, Omega 6 and Fatty Acid (C:15)** to ensure that the cells begins to be properly structured with nice membranes that can allow their response to the insulin to be effective.

For Cellular Health the following are required daily nutritional products:

- Cod Liver Oil or Other good Fish Oil Supplement with High Levels of DHA like 1000mg Omega 3 Health EPA/DHA Fish Oil Fatty Acids Capsules 2 Months Supply - BodyHealth.com LLC
- Vanadium and Chromium Trace Minerals https://a.co/d/bmlajZo
- The fatty Acid c15 **Fatty 15 supplements:** fatty15.com/SFJD33Q9

Remember the Fruit Name: Damsel
(https://aihealthinsight.org/phyllanthus-acidus-damsil-in-grenada-star-gooseberry/)

Phyllanthus acidus

Name:
Otaheite Gooseberry

Grenadians: # Damsil

Useful:
Yes good for Liver
Great for Pancreas

Phyllanthus acidus is like a superhero for your liver and pancreas, giving them

Sour tasting fruit
Fruiting in Mid

Please visit this website link to read the research document on this fruit and how it helps the pancreases beta cells - the place for creating the INSULINE.