ISLAM MEDHAT MAHMOUD

Cairo University Egypt

Islammedhat36@yahoo.com

ISLAM MEDHAT

BEST SPEAKER IN INTERNATIONAL PHYSICAL THERAPY CONFERENCE

BEST STUDENT RESEARCH IN ARAB WORLD 2013

RESEARCH TEAM LEADER IN CMS , CORE MEDICAL SOCIETY

SPEAKER IN 2ND INTERNATIONAL CONFERENCE FOR PHYSICAL MEDICINE AND REHABILITATION BALTIMORE MARYLAND, USA 2014

FOR THE LAST 2 YEARS I HAVE BEEN WORKING ON A RESEARCH THAT MAKE A GREAT RESULTS GLOBALLY ON THE EXPIRMENTAL STUDIES DONE ON RATS TO TREAT DIABETES MELLITUS TYPE 1 AND TYPE 2 WITH THE USAGE OF THE LOW POWER LASER CLINICALLY USED IN FIELD OF PHYSICAL MEDICINE, DENTISTRY, ORTHOPEDICS AND OTHERS

MY MAIN AREA OF INTEREST INCLUDE LOW POWER LASER AND DIABETES

IN THE NEXT SLIDES I WILL BRIEFLY DEMONSTRATE THE RESEARCH AND IT'S RESULTS

NOTE ANY INFORMATION SHOULDN'T BE TAKEN WITHOUT AN INFORMED CONSENT FROM THE LECTURER

CURRENT ROLE FOR SPECIALTIES WORKING IN THE FIELD OF PHYSICAL MEDICINE IN MANAGEMENT OF DM

MAINLY AEROBIC EXERCISE PRESCRIPTION

IN THIS PRESENTATION I AM GOING TO PROVE TO YOU EXPERIMENTALLY THAT WE AS A SPECIALTIES WORKING IN THIS FIELD COULD REACH A CURE FOR DIABETES MELLITUS

DIABETES STATISTICS

204,301 PEOPLE DIE EVERY YEAR IN USA ONLY BECAUSE OF DIABETES THE NUMBER ARE PRETTY MUCH HIGHER IN OTHER DEVELOPING COUNTRIES

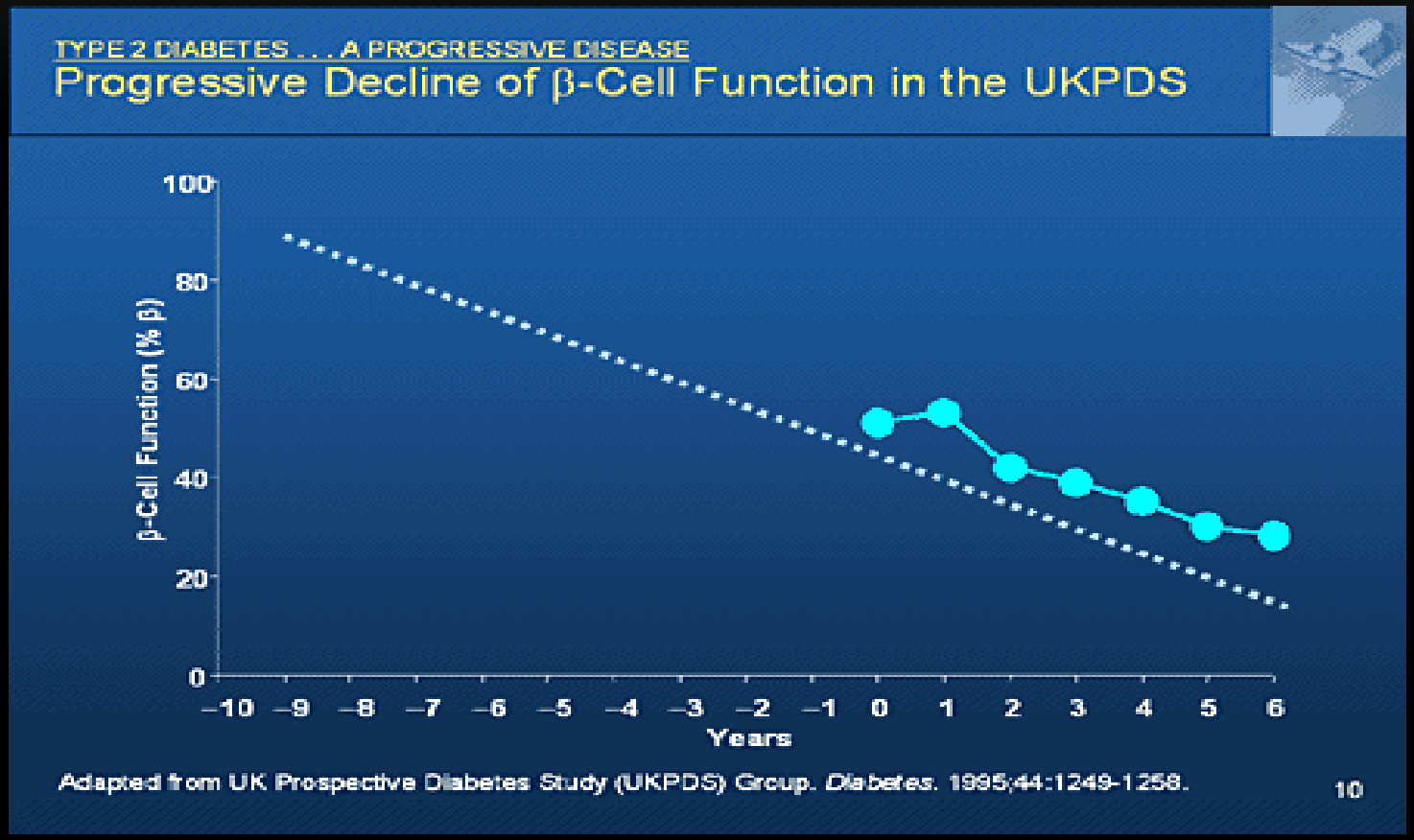
7TH LEADING CAUSE OF DEATH, BUT IT IS NOT THE CASE DIABETES CONTRIBUTES TO OTHER LEADING CAUSES OF DEATH IN WORLD

AMERICAN HEART ASSOCIATION STATES THAT THE DIABETICS HAVE TWO TO FOUR MORE RISK TO DEVELOP HEART DISEASE AND STROKE WHICH IS THE LEADING CAUSE OF DEATH IN THE WORLD

DIABETES CONSIDERED AS A LEADING CAUSE OF RENAL FAILURE WHICH IS THE 9TH LEADING CAUSE OF DEATH IN THE WORLD

SO WE CAN SAY FROM THAT DIABETES AS A DISEASE IS NOT SO DANGEROUS WHAT IS THE MOST RISK IS WHAT DEVELOP AS A CONSEQUENCE OF IT'S PRESENCE

TYPE 2 DIABETES HAS PROGRESSIVE NATURE INJECTION WILL BE THE CHOICE SOONER OR LATER.



MEDICAL TREATMENT FOR DM JUST LIKE A NUMBER OF OTHER DISEASES.
UNABLE TO TREAT THE CAUSE SO YOU JUST KEEP TREATING SYMPTOMS AND LEAVING CAUSES GROWING.

This is such a waste of resources what type of treatment prohibit the patient from most food and give him a life long medication and accordingly a life long side effects that is one day or another will lead him to depend on Insulin injection In fact it is a very common scenario that a type 2 patient eventually use Insulin.

COMPLICATIONS

.HYPEROSMOLAR HYPERGLYCEMIC SYNDROME MAINLY COMMON IN NONKETOTIC TYPE 2 DM (20%) BLOOD SUGAR OVER 600 MG/DL

.DIABETIC RETINOPATHY

.DIABETIC NEUROPATHY (50% OF PATIENTS)

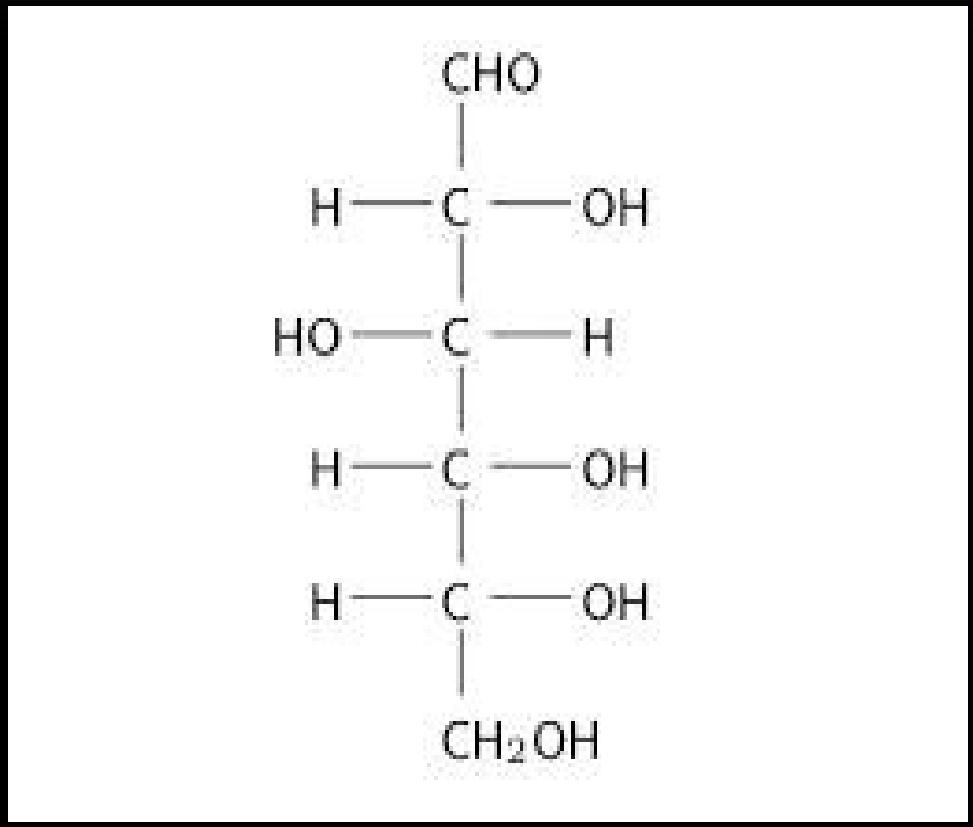
.DIABETIC IMMUNOPATHY

.DIABETIC NEPHROPATHY

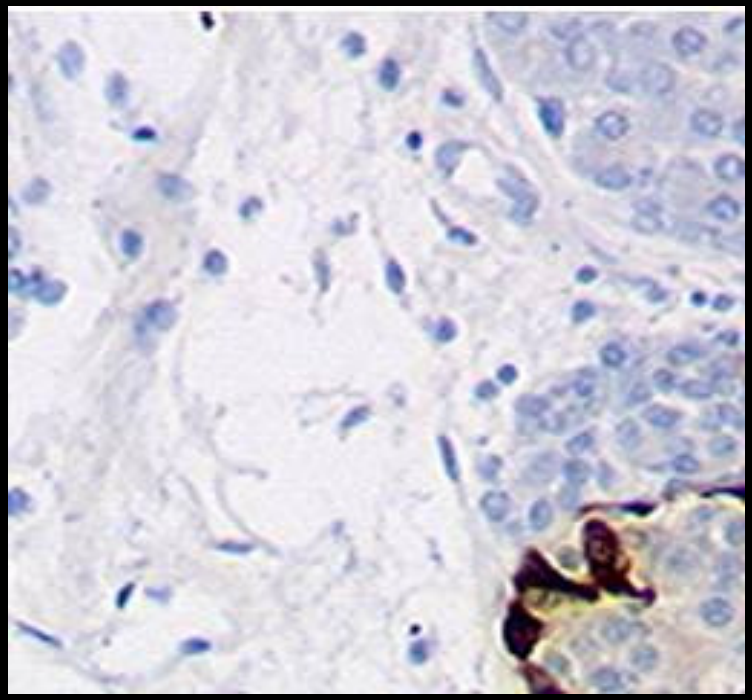
.DIABETIC FOOT

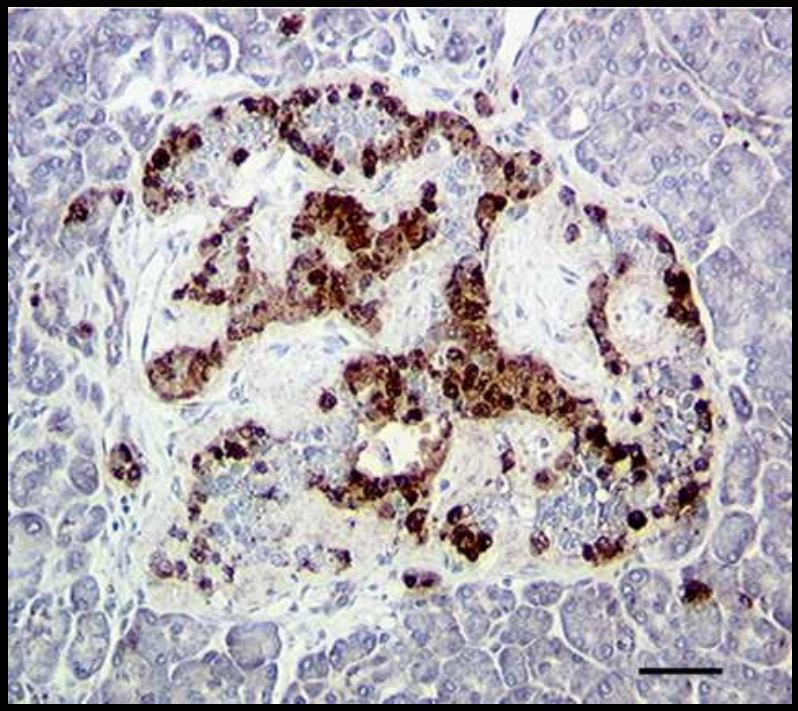
THIS TAKES ME TO STUDY MORE ABOUT GLUCOSE AND BETA CELL AND HOW THEY ARE INTERCONNECTED IN A POINT CALLED INSULIN

Glucose



BETA CELL HISTOLOGY





RIGHT NOW 40% OF PATIENTS WITH TYPE 2 DIABETES USES INSULIN AS A PART OR AS A INDEPENDENT TREATMENT FOR THEIR CASE

INSULIN RESISTANCE TREATED WITH INSULIN

American Diabetes Association. Diabetes Care

Home | Current Issue | Archive | Contact Us | Subscribe | Help | Alerts | Podcasts

User Name
User Name
Password
LOG-IN

Search Go
Advanced Search »

The Use of U-500 in Patients With Extreme Insulin Resistance

« Previous | Next Article »
Table of Contents

Elaine Cochran, MSN, CRNP, Carla Musso, MD and Phillip Gorden, MD

- Author Affiliations

From the Clinical Endocrinology Branch, National Institute of Diabetes and Digestive and Kidney Diseases, National Institutes of Health, Bethesda, Maryland

Address correspondence and reprint requests to Elaine Cochran, CRNP, CEB/NIDDK/NIH, 9000 Rockville Pike, Bldg. 10, CRC 6-5940, Bethesda, MD 20892. E-mail: elainec@intra.niddk.nih.gov

ADA, American Diabetes Association
SMBG, self-monitoring of blood glucose

The Diabetes Control and Complication Trial (1) and the U.K. Prospective Diabetes Study (2,3), as well as other smaller trials (4), have established the benefit of treating type 1 and type 2 diabetes to levels of glycemia as close to normal as possible. These studies have formed the basis for the therapeutic targets set forth in the most recent American Diabetes Association (ADA) guidelines (5).

This Article

doi: 10.2337/diacare.28.5.1240
Diabetes Care May 2005 vol. 28 no. 5 1240-1244

Extract *Free*
» Full Text
Full Text (PDF)
A correction has been published

- Services

Email this article to a colleague
Alert me when this article is cited
Alert me if a correction is posted
Similar articles in this journal
Similar articles in PubMed
Download to citation manager
© Get Permissions
Add to Custom Publication

+ Citing Articles

Current Issue
July 2014, 37 (7)

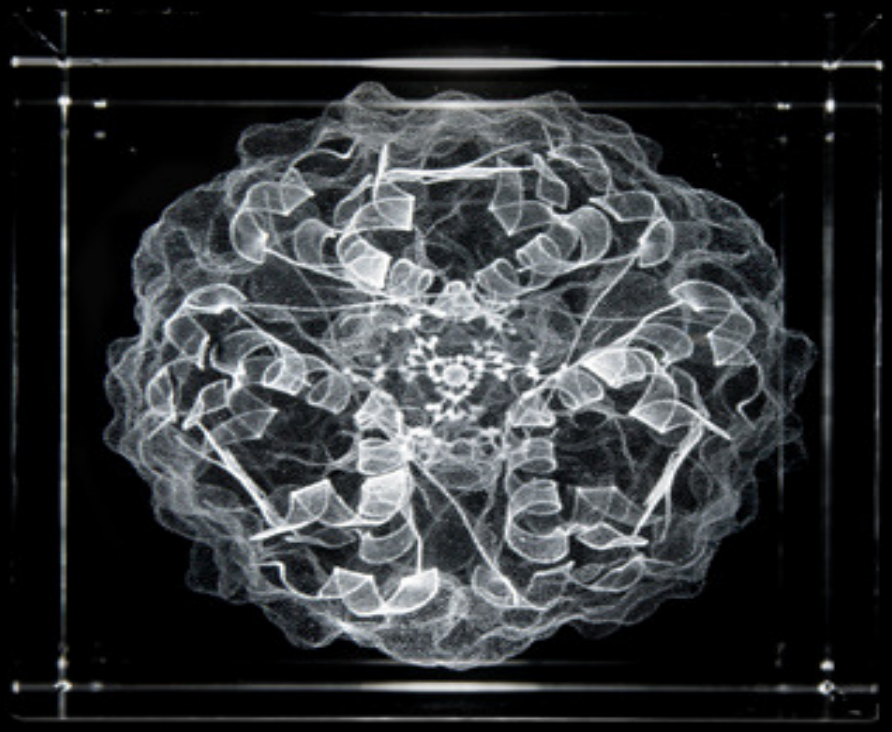
+ Issue Highlights

Alert me to new issues of Diabetes Care

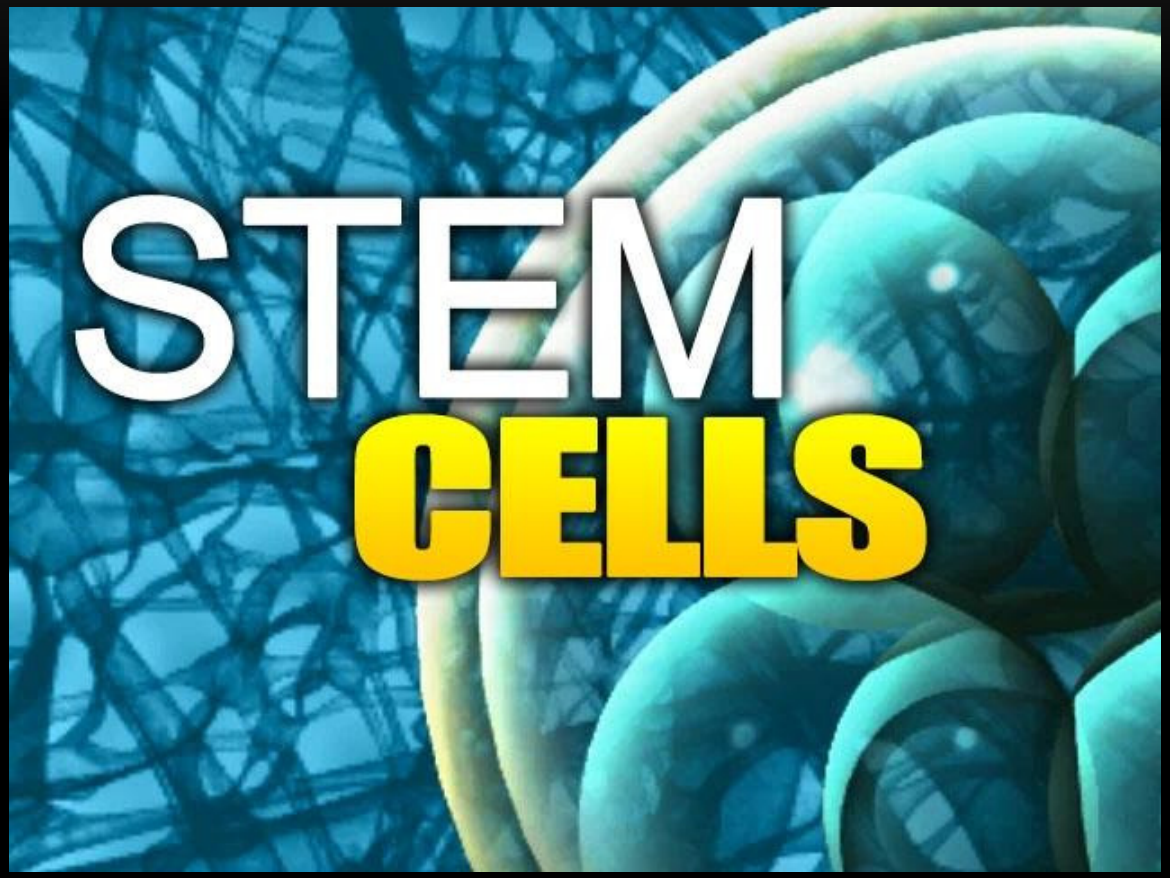
About Diabetes Care
Editorial Board
Instructions for Authors
Subscriptions
Advertising & Reprints

IN FACT PREGNANT WOMEN WHO SUFFER FROM TYPE 2 DM HAVE TO STOP TAKING ANY HYPOGLYCEMIC AGENTS –TERATOGENICITY EFFECTS- AND DEPENDS ONLY ON INSULIN
BEFORE THE DISCOVERY OF INSULIN DIABETICS WERE NOT ALLOWED TO GET PREGNANT
NOW MOST PREGNANT WOMEN DEPEND ON INSULIN WITH EXCELLENT RESULTS

SO IT IS ALL ABOUT INSULIN, YOU INCREASED INSULIN YOU TREATED DIABETES



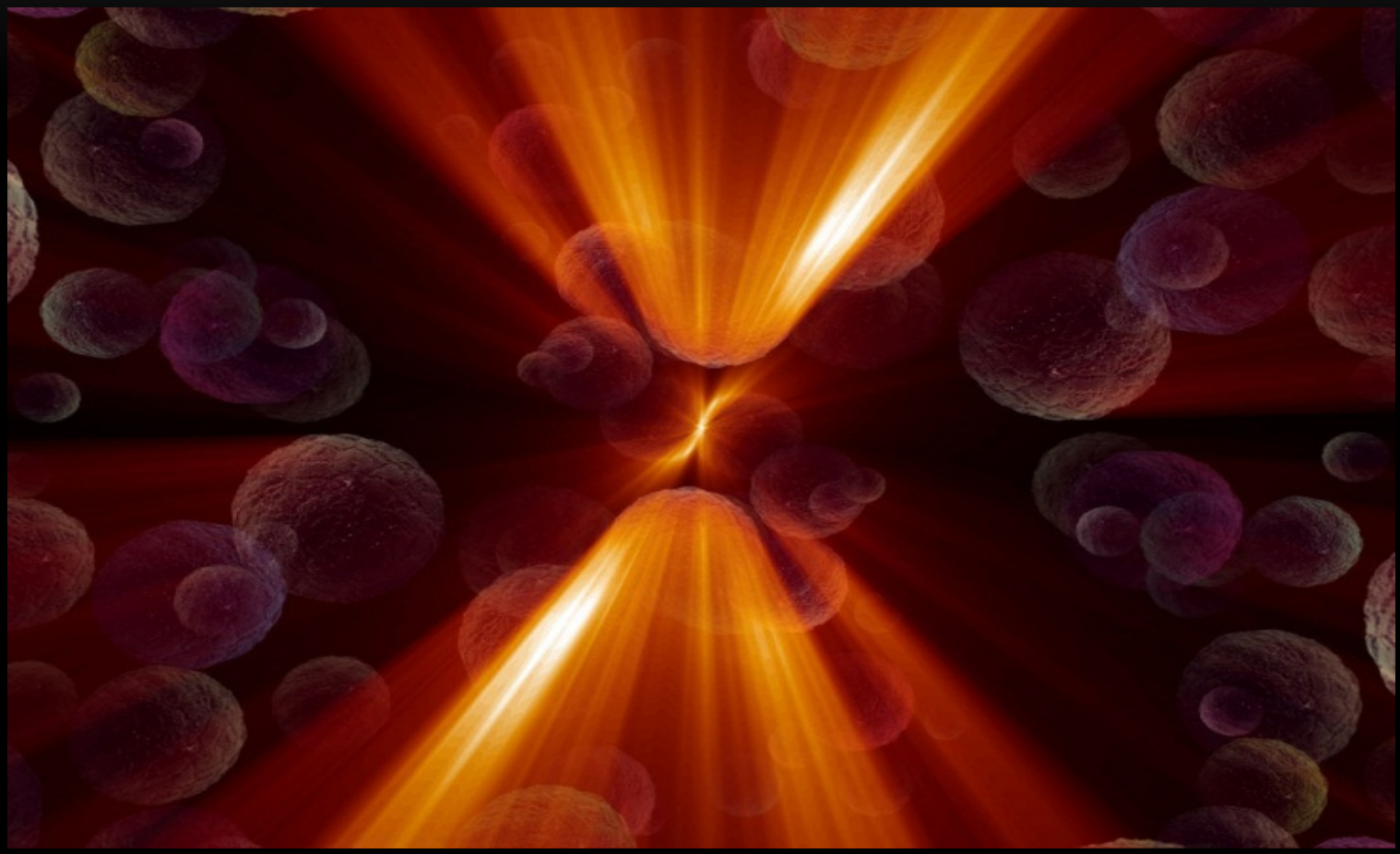
STEM CELLS TREATMENT INCREASE INSULIN IN DIABETICS WITH 8% SUCCESS



SO WHAT IF WE HAVE A MODALITY THAT COULD STIMULATE INSULIN JUST LIKE THE STEM CELLS.

BODY'S OWN SYSTEMS ARE STIMULATED TO TREAT BODY'S OWN DISEASE.

LASER



HISTORY OF LASER
PROFESSOR ANDREW MESTER
DISCOVERED BENEFITS OF LASER IN 1964 FINDING ENORMOUS HEALING ABILITY OF LASER

Physiological Effects of LASER

Note all of the following effects won't happen unless LASER is used correctly.

I started to classify the LASER as follows

PHYSIOLOGICAL EFFECTS OF LASER

"LASER IS A LOCAL TREATMENT THAT PRODUCE A LOCAL EFFECT
,ACCORDINGLY THE EFFECT WILL VARY ACCORDING TO THE TREATED AREA"

Primary Cellular

Unavoidable(it will happens as soon as LASER touches the cells):

1. Porphyrins
2. Flavoprotiens
3. Catalases
4. Cytochrome c oxidase & Nitric Oxide
5. Oxygen Hypothesis

All of these leads to Mitosis and initiate the secondary effects

Secondary Regional

Avoidable:

High variability

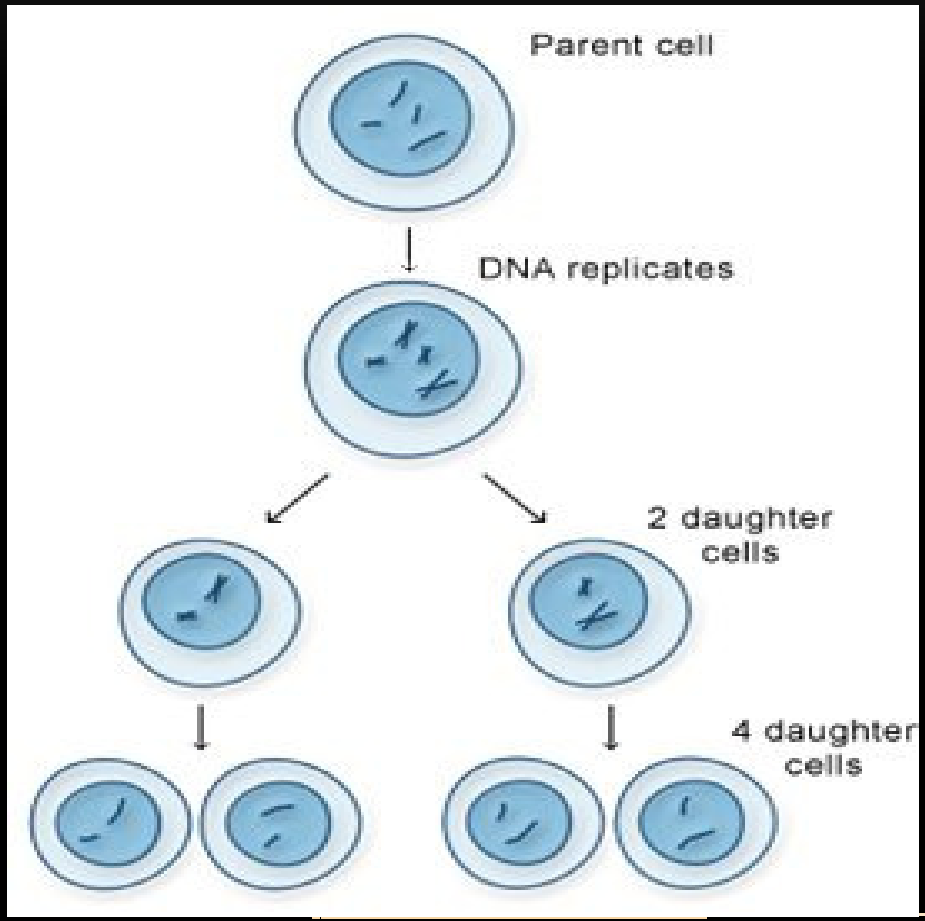
Highly depend on region, skills of the clinician and purpose of TTT

Example

Cartilage	Chondrocytes
Bone	Osteocytes
Hepatocytes	Interferon
Wound	BFGF
Liver	IGF 1
Pancreas	INSULIN

Mitosis

That explain the current indication of LASER



IDEA

What if we used the LASER in a certain procedure to reach the islets of Langerhans stimulating their mitosis and allowing more insulin to be produced to treat the cause of the disease not just the hyperglycemia which is the symptom

CONTROVERSY

One of the obstacles faced me during this research was the huge controversy about LASER

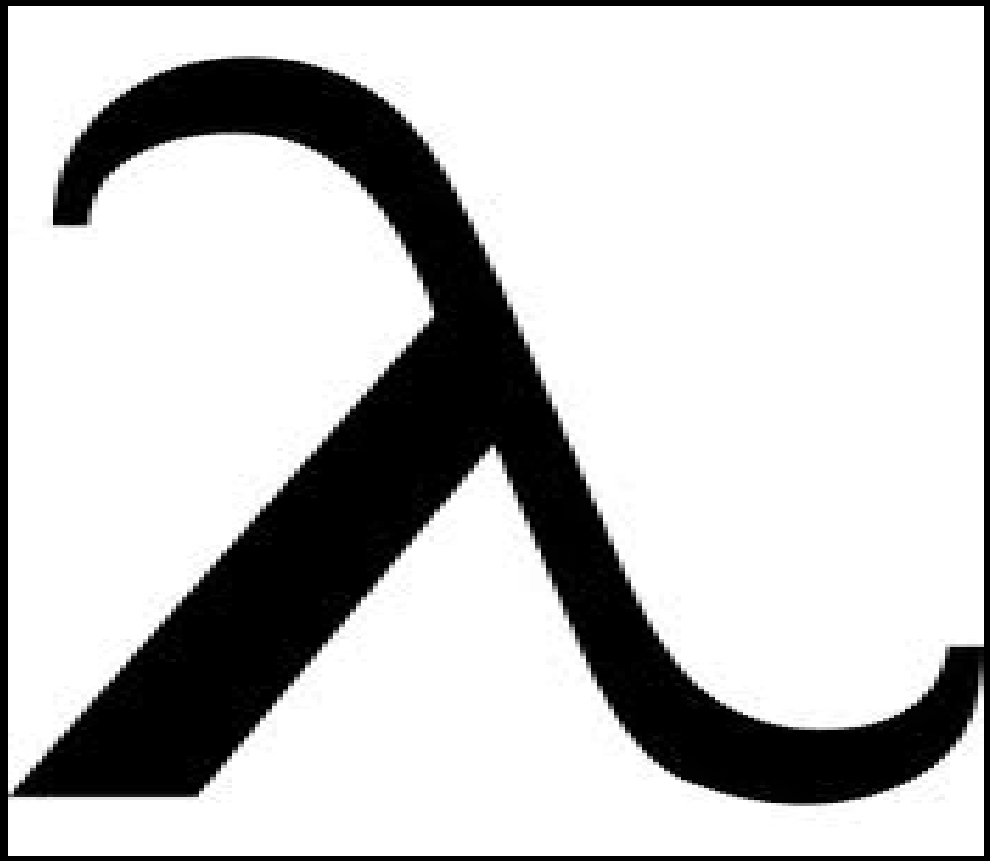
DR KENDRIC SMITH (STANFORD UNIVERSITY SCHOOL OF MEDICINE) DISCUSSED THIS CONTROVERSY IN A NUMBER OF PAPERS

BLUE LIGHT IS NOT OF ANY HARM TO DNA , BUT IT IS DESTRUCTIVE FOR BILIRUBIN IN FACT IT IS THE FIRST LINE OF TREATMENT FOR JAUNDICE

WALKER REPORTED THAT LASER OF 633NM IS OF NO EFFECT IN TREATING POST HERPETIC NEURALGIA
WHILE MOORE REPORTED THAT RADIATION WITH 830 NM IS THE TREATMENT OF CHOICE FOR THE SAME PAIN.
THAT EXPLAINS A LOT.

IN ORDER FOR PHOTO MEDICINE TO BE EFFECTIVE
THE FIRST LAW OF PHOTOCHEMISTRY, THE GROTTHUSS-DRAPER LAW SHOULD BE APPLIED, STATES THAT LIGHT MUST BE ABSORBED IN ORDER FOR A PHOTOCHEMICAL REACTION TO TAKE PLACE.

WAVE LENGTH



SINCE WAVE LENGTH WAS DIFFERENT IT WASN'T ABSORBED BY THE DIFFERENT TISSUE THIS MEANS THAT EVERY WAVE LENGTH IS ABSORBED BY DIFFERENT TYPE OF TISSUE

THE QUESTION HERE IS WHICH WAVE LENGTH ABSORBED BY WHICH TISSUES SO STIMULATE WHICH ENZYME

I NEEDED HERE TO DEVELOP A CHART BASED ON MY EXPERIMENTS AND OTHER PAPERS PUBLISHED IN THE FIELD OF PHOTO MEDICINE IN THE LAST 10 YEARS, BASED ON THE RESULTS ON HUMAN BEINGS ONLY

(NOT JUST ANIMAL SAMPLES).

Islam's Chart for LASER application

ISLAM's Chart for LASER application

λ=405 NM Telomerase enzyme, chlamydia trachomatis mesenchymal cells
λ=630 NM Bacteria Candida
λ=632.8 NM Beta cells in islets of Langerhans , Microglial cells
λ= 635 NM Epithelial cells, fibroblastic cells, staphylococcus aureus , Muscle Myocytes, ,MDA(Malondialdehyde), Superoxide dismutase Secreting Cells, NO nitric Oxide , Collagen type 1 and 2 ,Malignant cells, Beta Cells islets of Langerhans,Cardiomyocytes
λ=660 NM, λ=790 NM, Nitric Oxide, VEGF Vascular endothelial growth factor staphylococcus aureus
λ=670 NM Nitric Oxide, Malignant cells Cardiomyocytes H.Pylori
λ=780 NM Cytokines, MCP-1 , monocytes, macrophages, and endothelial cells. , osteocytes, caudate nucleus, helper CD4 T lymphocytes
λ =808 NM Globus Pallidus, Neuronal cells
λ=809 NM Malignant cells
λ=810 NM RBCS, Lipids, Neuronal cells
λ=830 NM Tendons, Myocytes, staphylococcus aureus, Osteocytes HSV 1 &2
λ=880 NM IL 10
λ=904 NM Lymphocytes, Chondrocytes, glutathione level , PG
λ=980 NM staphylococcus aureus

References

Tuby H, Trudler D, Doron-Mandel E, Maltz L, Vassar RJ, Frenkel D, Oron U

onathan Stone

Kim WT, Bayome M, Park JB, Park JH, Baek SH, Kook YA

Gavish L, Rubinstein C, Bulut A, Berlatzky Y, Beeri R, Gilon D, Gavish L, Harlev M, Reissman P, Gertz SD
Department of Anatomy and Cell Biology, The Hebrew University, Hadassah Medical School, Jerusalem

t Denis TG, Dai T, Izikson L, Astrakas C, Anderson RR, Hamblin MR, Tegos GP.

Maisch T.

Bornstein E<>, Hermans W<>, Gridley S<>, Manni J<>.

Araújo PV<>, Teixeira KI<>, Lanza LD<>, Cortes ME<>, Poletto LT<>

Ye L, Kalichman L, Spittle A, Dobson F, Bennell K.

Rubio CR<>, Cremonezzi D<>, Moya M<>, Soriano F<>, Palma J<>, Campana V<>

Rubio CR<>, Simes JC<>, Moya M<>, Soriano F<>, Palma JA<>, Campana V<>

Jamtvedt G<>, Dahm KT<>, Holm I<>, Flottorp S<>.

Castano AP<>, Dai T<>, Yaroslavsky I<>, Cohen R<>, Apruzzese WA<>, Smotrich MH<>, Hamblin MR<>.
Wellman Center for Photomedicine, Massachusetts General Hospital, Boston, Massachusetts 02114, USA.

HERE COMES A QUESTION WHICH INTENSITY WILL REACH WHICH DEPTH AND WILL STIMULATE WHICH PROCESS INHIBITORY OR EXCITATORY

Note
George.S , John.M in Australia
paper published in WCPT
World confederation for physical therapy

This equation will have more area for error if the procedure wasn't performed by a person who is able to substitute accurately in the variables of the equation

ISLAM'S EQUATION FOR LASER APPLICATION

I	Depth	Residual Intensity
200mw	4cm	0.3mw

$$R = 0.075\ DZ$$

$$I = 50D$$

Where R= Residual Intensity

I= Intensity

D=Depth

Z=1/2 if bony medium

And =1 if the medium

Is the soft tissue

COMMON NUMBER FOUND IN A NUMBER OF RESEARCH STATES THAT THE RESIDUAL INTENSITY OF 0.3 TO 0.5MW IS OF EXCITATORY EFFECT

THIS EQUATION IS NOT APPLICABLE IF THE MEDIUM SEPARATING YOU FROM THE TARGETED AREA TO BE TREATED IS BOTH BONY AND SOFT TISSUE MEDIUM

The following must be taken into consideration during the procedure:
1-Diameter of the beam
2-Amount of HCA hyperosmotic chemical agent
3-Angle between the probe and organ must be 90
4-Even the skin compression done by your hand during the procedure will lead to different depths

Starting experiments:
A Quantitative study used 50 wistar rats (20 male and 30 females) 635nm LASER used for 15 mins with energy 2.7 Joule
Pancreas was located at about 0.05cm (Approximately) after an upper abdominal opening was made after application of lidocain hydrochloride with SC injection in 2 areas for anesthesia (14 samples required slightly higher doses and IM injection)
Glucose levels was monitored before and after in both 2 hours post prandial and fasting tests for entire 5 weeks for following up

Anesthesia: Lidocain Hydrochloride used 1/10 Diluted S.C injection 2 mg/kg
Note: 14 samples required higher doses
Scale used: 2 hours Post prandial and fasting testing monitoring continued for a whole 5 weeks
Type 2 Diabetes was induced using streptozotocin intra peritoneal injection 25mg/kg

Results was as follows:
Blood glucose levels decreased in fasting testing by 40%(+ or _ 10%)

And (35% +or_ 3%) in post prandial

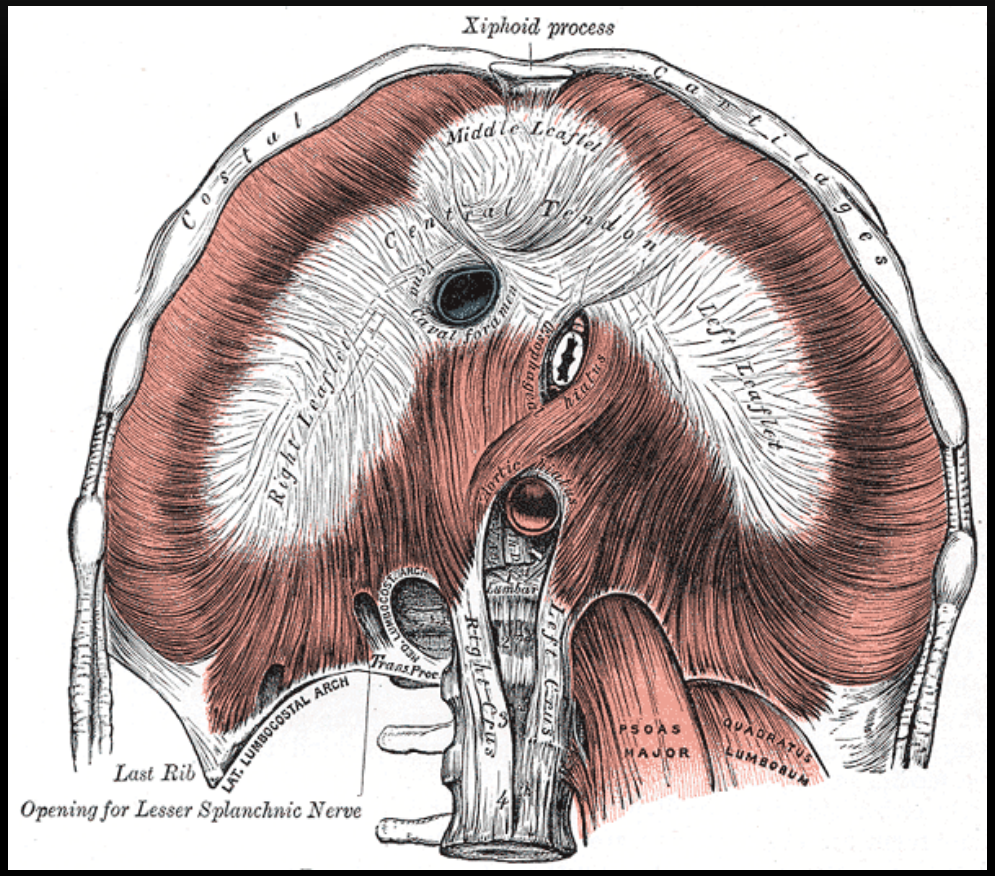
Vision is to apply the procedure on human beings
Pancreas is located bilaterally in the level of T12 vertebrae

Precautions
Inspect the skin very carefully for any sign of infection if there is an infection cancel the procedure till the infection resolves in order not to activate it with your laser

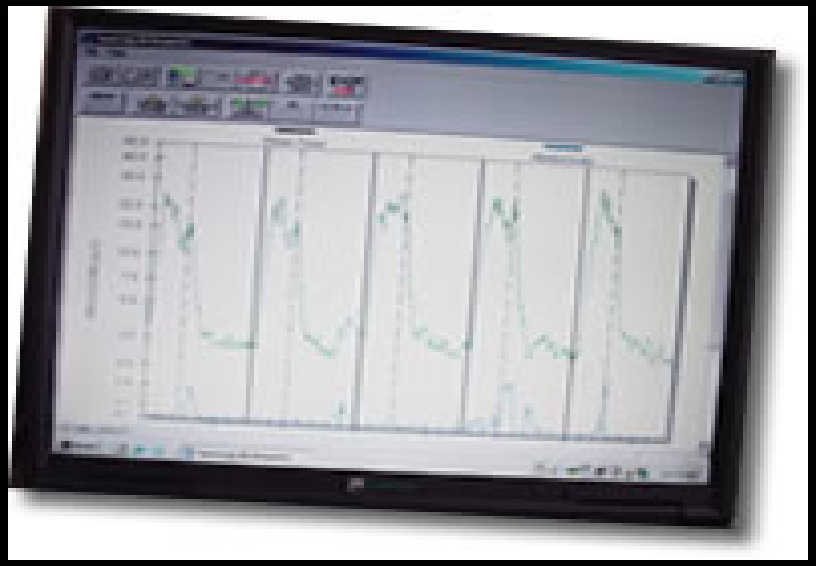
Measure the patient temperature and take a fully detailed Medical history

2 Things need to be managed in order for this procedure to work

1. Diaphragm pushes the pancreas in every breath

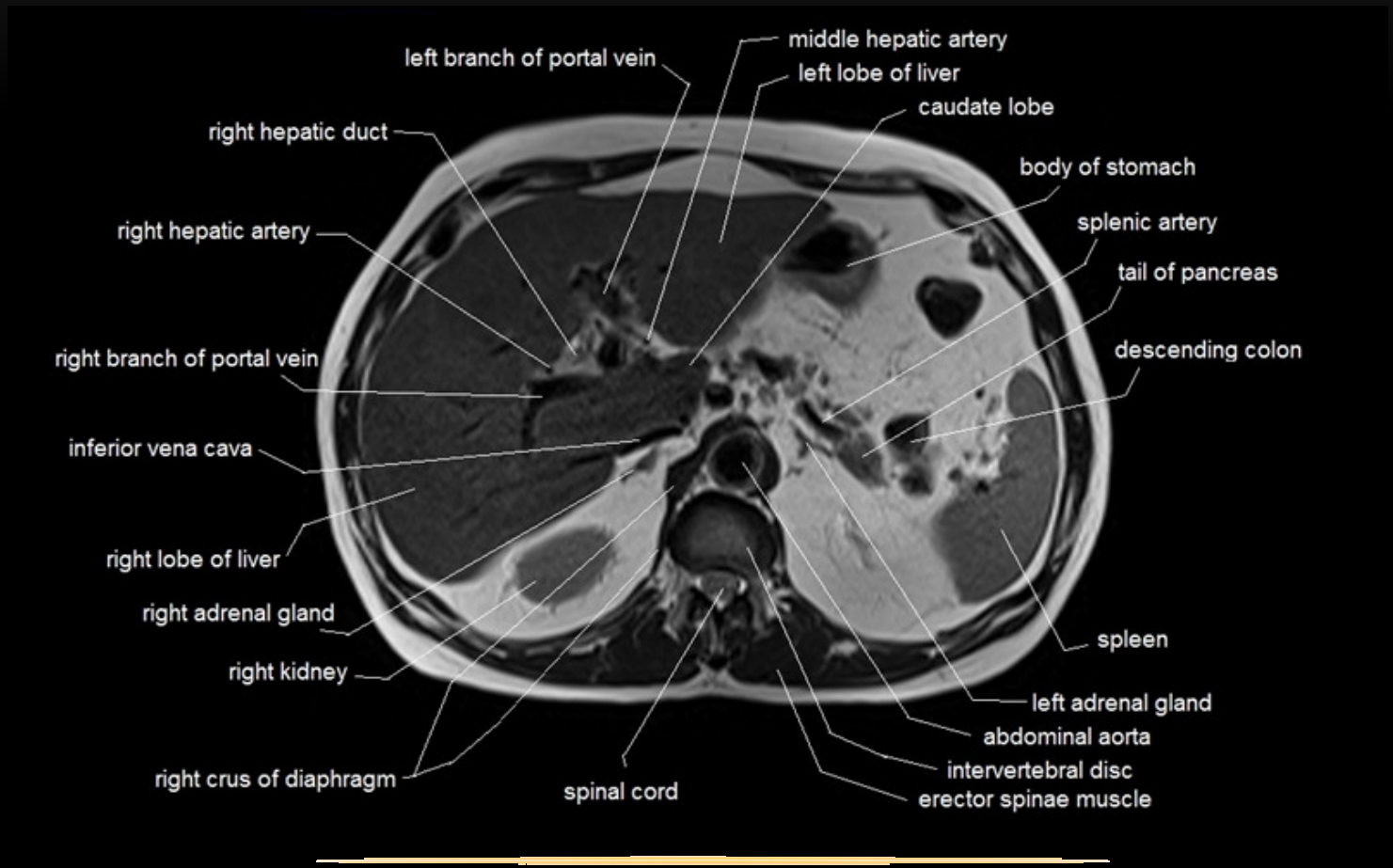


EMG biofeedback will give you an auditory feedback the device will go off that makes you modify the patient respiration when it become increasingly deep



If your EMG device doesn't provide you with an auditory signals get a Physical therapist assistant or nurse to monitor the device, alarming you if the patient is taking deep breathes

2.Suprarenal gland very near to pancreas



H.R & R.R & B.P
Should all be accurately measured before and after the procedure

Blood sugar should be monitored before and after each session
Drug or insulin doses is with drawn gradually based on the lab readings till blood sugar is normalized
Follow up is needed with you and Gastroenterologist or Endocrinologist

THANK YOU