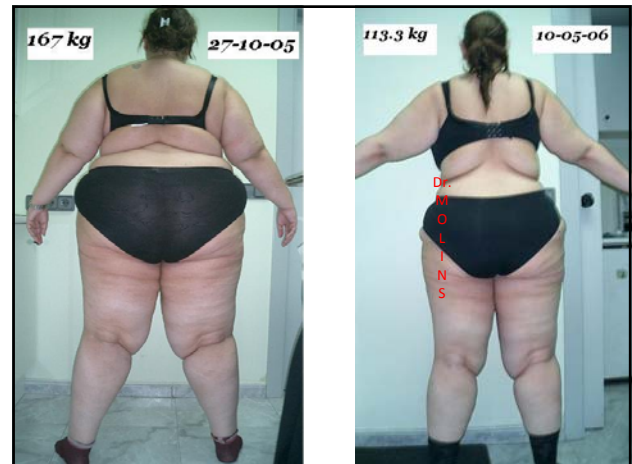
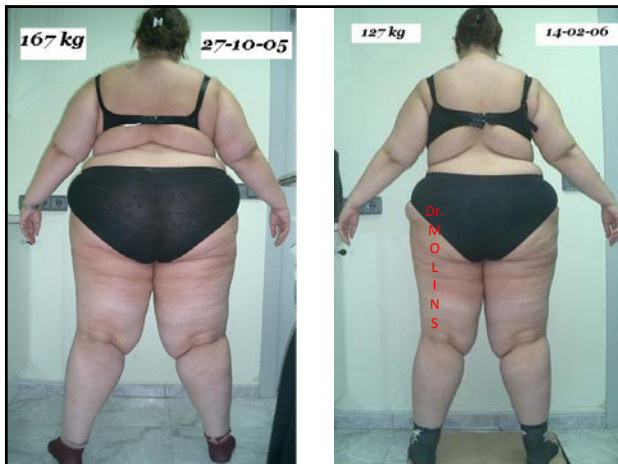


A PROTEIN DIET : AN EFFICIENT AND SCIENTIFIC WEAPON FOR WEIGHT LOSS

Dr Miguel Martinez

SUMMARY

- 1.- WEIGHT LOSS DIET = PROTEIN DIET
- 2.- MAINTENANCE DIET = PALEOLITIC ZONE DIET



WHAT KIND OF DIET

- SAFE
- FAST LOOSING WEIGHT
- MAINLY FAT
- FEELING WITH ENERGY
- NOT HUNGRY



IT IS A VLCD (VERY LOW CALORY DIET)

600-800 Kcal/day

CARBOHYDRATES = 30-50 g/d
PROTEINS > 70 g/d
LIPIDS = 4.5 "
VITAMINS = Full RDA
& MINERALS

VITAMINS IN VLCD

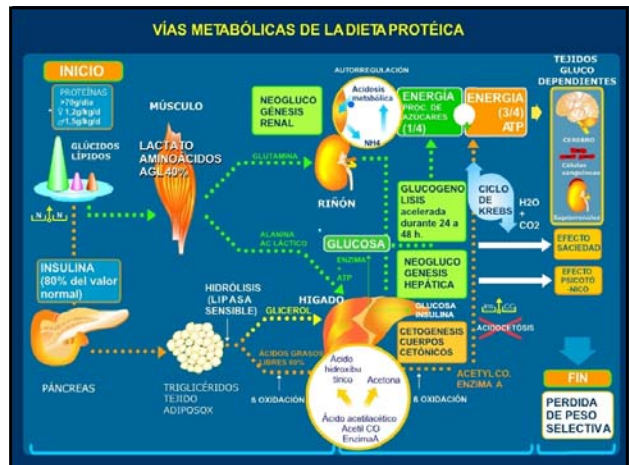
- VITAMIN A 700 mcg
- VITAMIN B1 1.1 mg
- VITAMIN B2 1.6 mg
- VITAMIN C 45 mg
- VITAMIN B3 18 mg
- VITAMIN B5 3 mg
- VITAMIN D 5 mcg
- VITAMIN B6 1.5 mg
- VITAMIN B7 15 mcg
- VITAMIN E 10 mg
- VITAMIN B9 200 mcg
- VITAMIN B12 1.4 mcg

MINERALS IN VLCD

CALCIUM	700mg	MANGANESE	1 mg.
PHOSPHORUS	550 mg.	CUPPER	1.1 mg.
IRON	16 mg.	ZINC	15 mg.
IODINE	130 µg	POTASIUM	3-7g
MAGNESIUM	150mg	SELENIUM	55 µg

EXPECTED WEIGHT LOSS IN PD

- MEN = 8 – 10 Kg / month
- WOMEN
 - PRE – MENOPAUSAL = 7-8 Kg / month
 - POST – MENOPAUSAL = 5-6 Kg / month



PHYSIOLOGY OF THE PROTEIN DIET

- Day 1-5 - GLUCOSE - ATP
(Hunger)
1g Glucose takes 4g water (> weight loss 1/52)
- > Day 5 - KETOTIC BODIES - ATP
(No hunger)
SATIETY & PSYCOTONICITY

KETOSIS IN DIFFERENT METABOLIC STATES

<u>METABOLIC STATE</u>	<u>KETOTIC BODIES</u> (mmol/dl)
FASTING 2 DAYS	1
FASTING 1 WEEK	5
KETOGENIC DIETS	5
FASTING 1 MONTH	8
DIABETIC KETOACIDOSIS	> 25

(S / Mitchell GA & al., 1995)

CONCEPTS ABOUT PD

- NORMOPROTEIC (1.2-1.5 g/kg)
- NOT HYPERPROTEIC (> 2 g/kg)
- MILD/MODERATE KETOSIS IS SAFE
- DOES NOT PRODUCE OR AGRAVATE KIDNEY & RENAL FAILURE

INDICATIONS

- OVERWEIGHT - BMI 25-29
- OBESITY - BMI > 30
- LOCALIZED FAT STORAGE (Cellulite)

CONTRAINDICATIONS

- CHILDREN ?
- PREGNANCY & BREAST-FEEDING
- DIABETES MELLITUS TYPE 1
- CVD - MI - MIOCARDIAL INFARCTION (< 3/12)
 - UNSTABLE ANGINA
 - SEVERE HEART FAILURE
 - SEVERE ARRHYTHMIAE
- CVA - ACTIVE STROKE (< 3/12)
- Tx - ACE INHIBITORS - HYPERPOTASAEMIA
 - ANGIOTENSIN-2 RC ANTAGONIST - "

CONTRA-INDICATIONS

- SEVERE LIVER FAILURE
- SEVERE KIDNEY FAILURE
- HAEMOPATHY (ACTIVE Ex: Anaemia)
- SEVERE PSYCHIATRIC DISEASES
- ALCOHOL DEPENDENCY
- DRUG DEPENDENCY

HOW DOES IT WORK



FLUIDS : 2-3 L PER DAY (water)

CARBOHYDRATES: VEGETABLES ONLY
 NO FRUITS, CEREALS, SUGAR, ALCOHOL,
 RICE, ALMIDONS, LEGUMES, YOGHURT, MILK

PROTEIN: MEAT, FISH, EGGS, SOYA,
 PROTEIN SACHETS

LIPIDS: OIL
 NO NUTS, OLIVES, CHEESE, AVOCADO

SUPPLEMENTS: NaCl 500mg + K 600mg + Mg 300mg +
 Ca 500mg + Multivitamins
 (SUGAR-FREE NO -ose / -ol Ex: Sorbitol / Lactose)

1st DAY - NO SUPPLEMENTS
 2nd DAY - NaCl 1-1-1 & K 0-1-1
 3rd DAY - AS PER FOLLOWING TABLE

Distribución diaria	Menús & sobres PronoKal	Sal	Potasio	Magnesio	Calcio	Vitaminas y Minerales
		PRONOKAL	POTASION 600	MAGNESIO	MASTICAL	SUPRADYN.
Desayuno	...1 sobre PronoKal	2	0	1		1
Media mañana	...1 sobre PronoKal				1	
Almuerzo	...1 sobre PronoKal + verduras	2	2			1
Merienda	...1 sobre PronoKal				1	
Cena	...1 sobre PronoKal + verduras	2	2			
Intermedió	0-1 sobre PronoKal					

PHASES OF THE PD

- 1.- ACTIVE PHASE : KETOSIS
- 2.- RE-EDUCATION PHASE :
NON-KETOSIS
START NEW FOOD GROUPS
- 3.- MAINTENANCE PHASE :
Amount of food depending
of height + weight + exercise

HOW TO START

FIRST VISIT

- 1.- CLINICAL HISTORY FOOD HABITS
HOW MANY MEALS / OFTEN
PMH
- 2.- PHYSICAL EXAMINATION BP / P / Ht / Wt / BMI
C-V / RS / ABD
ABD & HIP DIAMETER

3.- COMPLEMENTARY EXAMINATIONS

? IgG FOOD INTOLERANCE TEST
 FBC, U&E, LFT, GammaGT, URATE
 Fasting LIPIDS & Glucose
 TSH / Free T4 / Free T3 / ? Cortisol / CBG
 PHOTOGRAPH AP / LATERAL

FOLLOW / UP

(After first 1/52 and thereafter every 2/52)
 HPC, BP, P, Wt, ABD & HIP DIAMETERS

HOW TO CALCULATE IDEAL WEIGHT

- 1.- **MEN:** HEIGHT + 1 Kg per decade > 30y
 Ex: 50 years old Ht 1.70
 70 + 3 = 73 kg IDEAL WEIGHT
- 2.- **WOMEN:** HEIGHT – 10% + 1 Kg per decade >30
 Ex: 40 years old HT 1.60
 60 – 6 + 1 = 55 kg IDEAL WEIGHT
- FINAL RESULT +/- 2**
 Ex: 73 +/- 2 kg = 71-75 kg Approx IDEAL WEIGHT

1.- **ACTIVE PHASE:** 5-8kg (w) ; 8-10kg (m)

2.- **RE-EDUCATION PHASE** 2kg/month
 LAST MONTH OF THERAPY

1st FORTNIGHT = + FRUITS & LEGUMES

2nd FORTNIGHT = + FATS

3.- **MAINTENACE PHASE:** PALEOLITIC ZONE DIET

MANAGING ? SIDE-EFFECTS



ANSWER TO SIDE-EFFECTS

NAUSEA	< SALT	> WATER	
VOMITING	< SALT	? BEGINING KETOSIS	? PROTEIN ALLERGY
DIARRHOEA	NO FEVER LOPERAMIDE	YES FEVER STOP DIET	? ANTIBIOTICS
CONSTIPATION	>INTAKE COOK GREEN VEGETAB	>Mg 450 or 600mg	GLYCEROL PR ENEMA
FATIGUE	? HYPONATREM > SALT & > H2O	? HYPOMg >450-600m	? HYPERKALIEMIA U & E 's
LEG CRAMPS	? HYPOKALIEMIA > K		
HEADACHE	? GETTING IN KETOSIS	NSAI	PARACETAMOL

MANAGEMENT OF SIDE-EFFECTS

HALITOSIS	SUGAR & ALCOHOL FREE	MOUTH WASH	
FLATULENCE	DIMETHICONE		
HAIR LOSS	? < Fe / Zn ? OMEGA 3	VITAMINS B1 + B6 + B12	
HYPERURIC-AEMIA	Start ALLOPURINOL 100mg 1/52 prior		
GOUT ATTACK	NSAI	COLCHICINE	
FEELING COLD	EXPECTED		
POLYMEROP	EXPECTED as		

LABORATORY RESULTS

DATA	POTASIO	SODIO	CALCIO	MAGNESIO	ACIDO URICO	GLUCOSA	HEMATIES	HEMATOCRITO	SIDEREMIA	TRANSFERRINA	COLESTEROL TOTAL	COLESTEROL LDL	COLESTEROL HDL	COLESTEROL VLDL	TRIGLICERIDOS	CREATININA	PLAQUETAS	GOT	GPT	PESO	T.A.	IMC
0/03/2005	3.7	142	8.4	2.0	6.4	166	4.890	47.1	95	224	29	60	302	1.2	234	39	62	95800	190-100	32.73		
2/04/2005	4.1	139	8.0	1.9	7.7											71	79	90100	120-80			
5/04/2005	4.6	143	8.8	1.9	5.7											36	68	87000	150-80			
8/06/2005	4.0	142	8.9	2.1	4.8	77	4.600	44.0	52		184	130	39	15	123	1.00	229	19	32	79800	140-70	
																				74800	130-85	25.53