



SCIENTIFIC AND MEDICAL INFORMATION PUBLICATION

SPRING 2008 — #08.

REGULAR FASTING AND LIFE EXPECTANCY

The low cardiovascular disease risks noted in the Mormon community could be partly due to their regular fasting practices. This was reported by doctor Benjamin Home during his presentation to the American Heart Association's scientific sessions of the results of a trial to which he had participated. "Fasting could have some effect on resensitizing the body to glucose and insulin," Home said, recalling a study published in Nature earlier this year which suggests that animals who are regularly submitted to periods of fasting have a greater life expectancy. It seems that certain genes, regulated during fasting, might have an action on glycogen. Home also reported that recent trials have shown that people who practise a 20-30% "caloric restriction" also seem to live longer than the general population.

Christensen R, Kristensen PK, Bartels EM, Bliddal H, Astrup A. Efficacy and safety of the weight-loss drug rimonabant: a meta-analysis of randomised trials. *Lancet* Nov 2007; 370(9600):1706-13

NEW FAO SCHOOL GUIDE

Aimed at all who feel concerned by nutrition education programmes in schools, this guide shows how to define and achieve the objectives that are essential for satisfactory nutrition education. If you wish to follow this issue to its source ...

FAO. L'éducation nutritionnelle dans les écoles primaires. Guide de planification pour le développement des programmes scolaires 2007 <http://www.fao.org>

RIMONABANT-RELATED RISKS CONFIRMED

A meta-analysis of all published randomized controlled trials confirms the correlation between treatment by 20mg of rimonabant per die and an increased risk of psychiatric side-effects (mood disorders, anxiety, depression). In line with the FDA's report of an increased suicide risk, the authors "recommend increased alertness by physicians to these potentially severe psychiatric adverse reactions".

Christensen R, Kristensen PK, Bartels EM, Bliddal H, Astrup A. Efficacy and safety of the weight-loss drug rimonabant: a meta-analysis of randomised trials. *Lancet* Nov 2007; 370(9600):1706-13



SPECIAL FOCUS : THE SPECIFIC ASPECTS OF FEMALE NUTRITION

PART ONE: FROM PUBERTY TO POSTPARTUM

THE VISCERAL FAT-MASS REDUCTION INDUCED BY PHYSICAL EXERTION IS DOSE DEPENDENT.

In their analysis of the results of 16 trials, the authors note that at least 10 MET.h/w (metabolic equivalents x h per week) of exercise are required to achieve visceral fat-mass reduction. It also seems that the more strenuous the exercise, the greater the fat-mass reduction.

K Ohkawara, S Tanaka, M Miyachi, K Ishikawa-Takata and I Tabata. A dose-response relation between aerobic exercise and visceral fat reduction: systematic review of clinical trials. *International Journal of Obesity* (2007) 31, 1786-1797

CARBOHYDRATE RESTRICTION: A CHOICE STRATEGY TO FIGHT OBESITY AND TYPE-2 DIABETES

The worrying progression of obesity and type-II diabetes indicates a definite need for new nutritional strategies to try and check this scourge. Westman & al have looked into this issue and propose a highly interesting review of carbohydrate restriction in low-calorie diets (LCD) and very-low-calorie diets (VLCD) including carbohydrate restriction, notably very-low-calorie-ketogenic diets (VLCKD). Indeed, recent work in this field evidences an capacity of the body to disregard its usual sources of energy, namely glucose and fatty acids, to the benefit of ketones. It

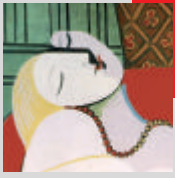
seems that, in the long term, carbohydrate-restricted diets have an appetite suppressant effect, promote weight loss, improve glycemic control and improve cardiovascular marker levels. The authors advocate the use of these low-carbohydrate diets in first intent for weight reduction strategies and, more generally, as a health promotion measure. Likewise, Doctor Wylie-Rosett, copresident of the group in charge of writing up the American Diabetes Association guidelines, hinted that this organisation might well revise its guidelines and lower its recommended daily

carbohydrate intake for diabetics. We are therefore looking forwards to reading the new guidelines' final version in the January 2008 copy of "Diabetes Care".

K - Westman EC, Feinman RD, Mavropoulos JC, Vernon MC, Volek JS, Wortman JA, Yancy WS, Phinney SD. Low-carbohydrate nutrition and metabolism. *Am J Clin Nutr*. 2007 Aug;86(2):276-84

Wylie-Rosett, J., Albright, AA, et al. "2006-2007 American Diabetes Association Nutrition Recommendations: issues for practice translation.." *Journal of the American Dietetic Association*. Aug;107(8):1296-304.(2007)

Wylie-Rosett, Judith. Conference Presentation, "A Review of the American Diabetes Association Recommendations for Dietary Carbohydrates" at the Eastern Regional Obesity Course of the American Society of Bariatric Physicians; Nutrition and Metabolism Workshop. May 5, 2007



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DOSSIER / THE SPECIFIC ASPECTS OF FEMALE NUTRITION //

PART ONE: FROM PUBERTY TO POSTPARTUM

When questioned on their past history, most overweight women usually refer to the milestones of sexual activity: menarche and teenage, pregnancy and breastfeeding, menopause. Not only do these moments in life involve both short- and long-term physiological changes, notably a risk of specific nutritional deficiencies, but they also have a psychosocial impact that should be taken into account.

LONG BEFORE CONCEPTION ...

Being overweight influences women right from the beginning of their "woman's life". Although there does not seem to be any specific determining dietary element involved at this stage, it has indeed been demonstrated that the higher a girl's BMI is, the earlier she will start to menstruate². And it is known that an early menarche is correlated with anterior breast cancer development!

Early sexual maturation also increases the risk of suffering from excessive fat-mass and obesity during adulthood³. The specificity of the female body compartments repartition is indeed confirmed at puberty, which explains the higher prevalence of excess weight in women than in men. For an equal weight, women have more fat mass and less lean mass than men which means that their needs, largely related to their lean mass, are different when it comes to energy requirements.

This difference in energy expenditure is related to women's hormonal secretions as energy requirements are greater during the luteal phase than during the follicular phase of the menstrual cycle. The calorogenic effect of progesterone has been clearly demonstrated and the increased dietary intake during the luteal phase is probably related to oestradiol/progesterone balance phenomena.

There is no cycle-related difference in the dietary intake of women taking oral contraceptive pills. On initiation of contraception, a degree of weight gain may be observed. Claims that new generation contraceptive pills might have milder weight-gain side-effects remain controversial⁴. This is also the age when most food-related behavioural disorders develop. Not only do they have an impact on weight gain or weight loss, they also have an effect on the very structure of women's relationship to food.



Whether related to excessive or insufficient food intakes, or involving swings from one extreme to the other, eating disorders developing at this early age also induce ovulation disorders by interfering with gonadotropic pathways. The abdominal distribution of fatty tissue in obese women has been linked to irregular cycles⁵ and is negatively correlated to conception rates during artificial insemination using donor sperm⁶. By restoring a normal menstrual cycle, weight loss promotes fertility in obese women. It also contributes to the reduction of foetomaternal morbidity which is greater in overweight women and includes, notably, pregnancy-induced hypertension, pre-eclampsia, gestational diabetes mellitus, macrosomia, caesarean sections and perinatal mortality⁷. This additional risk factor is in fact taken into account for all ovulation induction procedures, particularly since excess weight does reduce the efficiency of induction agents.

It is therefore essential to treat any weight excess before pregnancy is considered. On understanding that her fertility is at stake, the patient will be all the more motivated to loose weight.

□ **When no pregnancy is planned**, ketogenic or low-calorie approaches can be considered, depending on indications. However, care must be taken to meet all the body's requirements in trace elements, notably to build up iron and folate stores.

□ **When a desire for pregnancy has been expressed**, for instance when contraception is discontinued, a 400µg daily supplementation in folic acid is advisable as foetal neural tube closure normally occurs during the fourth week of pregnancy, i.e. very often before the woman knows she is pregnant. In case of excess weight, dieting will involve a low-calorie approach combined with an encouragement to take-up muscle toning exercising.

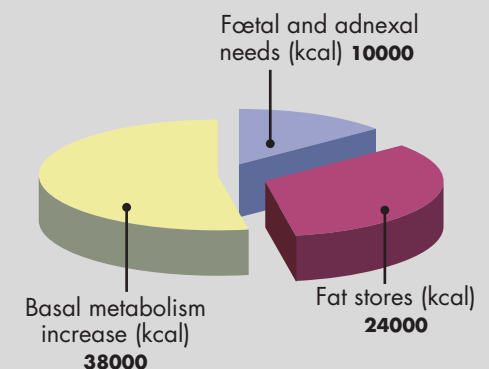
A low glycemic index/load diet with a high fibre intake should also be encouraged as this contributes to reduce gestational diabetes mellitus risks in predisposed women⁸.

THE APPROPRIATE WEIGHT DURING PREGNANCY

With pregnancy, the mother's body adapts so as to ensure an optimal development of the foetus. Despite the numerous metabolic adjustments that occur, some deficiencies or overloads are possible and these can be hazardous to both mother and/or child; hence the need for an appropriate diet, adapted to women's specific requirements during pregnancy and breastfeeding.

ENERGY REQUIREMENTS

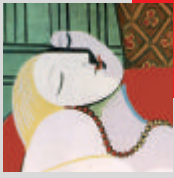
In theory, a pregnancy requires approximately 72,000 kcal (i.e. an average 255kcal/day) distributed over three fields of expenditure with foetomaternal development being the least demanding.



THE MAIN RISKS OF MICRONUTRIENT OVERLOAD AND DEFICIENCY IN ADULT WOMEN

Several major interventional trials have evidenced a risk of deficiency in vitamin B6, iodine, calcium, iron and, at a lesser degree, zinc, copper and magnesium. On the other hand, excessively high levels of vitamins A (beta-carotene

included) and B12, calcium, zinc and iodine are also a risk. The EU Scientific Committee on Food¹ (CSHPF) has therefore determined intake thresholds that are sufficiently high to guarantee adequate supply whilst remaining well below levels considered as presenting toxicity risks. The toxicity of vitamin B12, vitamin B9 and calcium is extremely low. Their normal values can be found in the quick-reference card tables. In agreement with EU Directive 96/8/EC, Eurodiet products are designed to cover daily requirements in vitamins and minerals.



GESTATIONAL DIABETES MELLITUS (3-6% OF PREGNANCIES): FEARFUL CONSEQUENCES, SIMPLE TO TREAT

In terms of public health, screening for gestational diabetes mellitus (GDM) has two major advantages: it identifies the population at risk of post-pregnancy diabetes and, with the nutritional care given to the mother, it lowers obesity and diabetes risks for the child.

Carried out between weeks 24 and 28 of gestation, screening usually involves O'Sullivan's test. All women should be screened since 30-40% of cases do not present with risk factors. Screening should most certainly be prescribed on first consultation, and repeated if negative, in the presence of the following risk factors: obesity, excessive weight gain, hydramnios, macrosomia during pregnancy, multiparity, over-35-year-old mother, family past history of type-2 diabetes, personal past history of GDM, premature delivery, foetal death in utero, macrosomia or hydramnios.

If a positive oral glucose tolerance test (OGTT) confirms the diagnosis, treatment should always include a dietary prescription taking into account the woman's pregestational weight and weight gain. This dietary prescription should be based on the following principles:

- Give priority to low-glycemic-index/load carbohydrates and fibres. It has been suggested that the share of carbohydrates in the daily energy supply should be reduced to 40%.
- This allowance should be distributed over 3 meals and 2 snacks
- In case of obesity or excessive weight gain, the energy intake should be reduced by a third, but not below 1500 Kcal.
- Encourage a "pregnancy-compatible" level of physical activity

Glucose tolerance should be checked 3 to 6 months after delivery and regularly thereafter. Preventive measures are imperative in women at risk of developing diabetes, notably weight normalization and regular physical activity.

Obesity and non-insulin-dependent diabetes risks are raised for the child. Nutritional monitoring of mother and child, focused on controlling glycemic loads and lipid intakes, is therefore essential.

The other two fields of energy expenditure, i.e. those not related to the foetus, vary with the mother's ethnic origin and her BMI. Basal metabolism is raised when the BMI is high (which helps avoid excessive weight gain) and slower when the BMI is low (to save enough energy for the pregnancy). In addition, half the pregnancy's energy requirements are, theoretically, compensated by the mother's reduction of her physical activity. This adaptability means that strict recommendations based on theoretical needs are here inappropriate. Weight targets should preferably be based on the mother's initial BMI and a regimen including a balanced diet and moderate physical activity should be encouraged.

TARGET WEIGHT GAINS

During pregnancy, recommended weight gains depend essentially on baseline corpulence:

Practically speaking, lean women being more at risk of producing an underweight baby, they will require adequate energy supplies and sufficient weight gain to optimise the baby's birth weight. Overweight women, and obviously even more so obese women, are exposed to greater medical and obstetrical risks: their weight gain may be limited but without going below 1,500 kcal/day so as not to compromise foetal growth. A phase 4 can therefore perfectly well be considered in obese women with an abnormal weight gain but, obviously, after adaptation of physical activity objectives and without any tolerance regarding alcohol consumption.

In all cases, pregnant women need to be prepared for a post-partum reduction of their intake if they are to recover their pre-pregnancy weight.

RECOVERING PRE- PREGNANCY WEIGHT...

Breastfeeding should be encouraged

Some women refrain from providing their child with the demonstrated benefits of breastfeeding because of a quite unfounded notion that it will prevent them from losing weight. Quite to the opposite, it has been demonstrated that, in the mid-term, women who breastfeed generally recover their figure more easily, and without following any particular diet, than those who do not breastfeed⁹. Indeed, during pregnancy, the body stores fat in view of future breastfeeding needs. If the latter does not occur, these stores will have to be used up otherwise. Because of their metabolic adaptation, women who breastfeed process their food intake better.

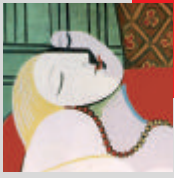
But another unfounded notion needs to be cleared to make postpartum weight-loss easier: the fairly widespread myth that "pregnant women should eat for two" which encourages dietary permissiveness. Once again, the points to stress are the need for a balanced diet and physical activity.

However, some overweight women and/or women who have gained too much weight during their pregnancy may need to diet, all the more since overweight women often have lactation problems¹⁰. In these cases, the intake should remain adequate to cover breastfeeding needs but a moderate weight loss (up to 2kg/month) is quite possible, **providing the daily intake remains above 1,800 kcal and is accompanied by physical activity**. A trial has indeed demonstrated that such regimens did not compromise the child's weight gain¹¹. So, once again, a phase 4 program is perfectly adequate in such cases, providing a few simple rules are followed:

- Only initiate dieting two months after delivery, once breastfeeding is satisfactorily established
- Avoid unduly restrictive diets. Do not restrict intakes beyond 1,800 kcal/day
- Negotiate a realistic weight loss target with your patient, roughly 2 kg/month
- Combine dieting with the resumption of gentle moderate physical activity

Pregestational BMI category (kg/m ²)	Recommended weight gain (kg)
< 19,8	12,5 à 18
19,8 à 26	11,5 à 16
26 à 29	7 à 11,5
> 29	> 6

Perrin AE et Simon C, Cah. Nutr. Diét., 37, 1, 2002



If the mother does not wish to breastfeed

When gestational weight gain has been normal, the main objective is to restore a moderate degree of physical activity and to encourage the patient to follow a balanced diet. However, if the woman was already overweight before her pregnancy, or if her weight gain has exceeded the normal limits for her BMI, a more energetic approach should be considered. Indications are the same as before pregnancy and weight management can be initiated as from the resumption of menses (see quick-reference card).

CONCLUSION : BALANCE AND PREVENTION

Only a balanced diet will provide an adequate intake of nutrients at all stages of a woman's life. Women at risk of becoming overweight should be cared for as early as possible so as to avoid the physical, psychological and behavioural consequences of excess weight. The negative impact of excess weight on fertility and on the baby's outcome is a potent motivation for women to lose weight before pregnancy. Likewise, the widespread desire of women to recover their figure after giving birth is also a good incentive for nutritional management. These key moments in a woman's life are as many opportunities to encourage the adoption of a balanced diet for long term weight control.

BIBLIOGRAPHY

1. European Commission Health & Consumer Protection Directorate General, Directorate C - Scientific Opinions C2 - Management of scientific committees; scientific co-operation and networks Scientific Committee on Food
2. Maclure M et al. A Prospective Cohort Study of Nutrient Intake and Age at Menarche *American J Clinical Nutrition* 54(4):649-656 (Oct 1991)
3. Ritz P., Salle A., Fournie A., Poids et hormones sexuelles : Prise de poids: quelques situations à risque, *Cah. nutr. Diét.* 2003, vol. 38, no5, pp. 291-296
4. Moreau C Trussell J Gilbert F et al. Oral contraceptive tolerance: does the type of pill matter? *Obstet Gynecol* 2007 Jun; 109:1277-85
5. Wabitsch M. et al. Body fat distribution and steroid hormone concentrations in obese adolescent girls before and after weight reduction. *J Clin Endocrinol Metab.* 1995, 80
6. Zaadstra, BM et al. Fat and female fecundity : prospective study of effect of body fat distribution on conception rates. *Br Med J.* 1993, 306
7. Galtier-Dereure F, Boegner C, Binger J, Obesity and pregnancy : complications and cost. *Am J Clin Nutr.* 2000, 71 (suppl. 1) : 1242S-1248S
8. Zhang C, Liu S, Solomon CG, Hu FB, Dietary fiber intake, dietary glycemic load, and the risk for gestational diabetes mellitus. *Diabetes Care* Oct 2006; 29(10) :2223-30
9. AbuSabha R, Green G, Body weight, body composition and energy intake changes in breastfeeding mothers. *JHL* 1998 ; 14(2) : 119-24
10. Hilson J, Rasmussen K, Kjolhede C, Excessive Weight Gain during Pregnancy Is Associated with Earlier Termination of Breast-Feeding among White Women. *J. Nutr.*, January 2006, 136:140-146
11. Lovelady CA, Garner KE, Moreno KL, Williams JP, The effect of weight loss in overweight lactating women on the growth of their infants, *New England Journal of Medicine* 2000 ; 342 : 449-453.
12. Martin A. Apports Nutritionnels Conseillés pour la population française, 3e édition - Ed. Tec&Doc, 2001.

SPECIFIC NEEDS OF PREGNANT AND BREASTFEEDING WOMEN

■ PROTEIN

In addition to normal basic needs, supplementary protein requirements during the 1st, 2nd and 3rd pregnancy terms have respectively been estimated at 1.3, 6.1 et 10.7g/day, taking into account the effectiveness of dietary protein conversion into tissue protein. Breastfeeding requires an additional protein intake of 7g/day We should therefore insist on a daily intake of high nutritional-value protein. These additional needs are usually covered by any balanced western-type diet but this is neither the case of women living in developing countries nor that of underprivileged women or strict vegans for whom protein supplementation is required.

■ CARBOHYDRATES

Carbohydrates are an essential energy source for foetal tissues. Carbohydrate metabolism changes with pregnancy: the first two terms give rise to hyperinsulinism, aimed of building up maternal energy stores, whereas this switches to insulin resistance during the third term, the mother drawing on her fat stores to the foetus's benefit.

■ LIPIDS

Lipids contribute to the body's energy supply, they transport and distribute liposoluble vitamins (A, D & E) and are required for the development of the foetus's nervous membranes. Polyunsaturated fatty-acids supply is exclusively dietary and n-3 and n-6 fatty acids should represent respectively 0.5 and 3% of our daily intake. This recommendation also applies to breastfeeding mothers.

■ IRON

Iron requirements for pregnant or breastfeeding women have been estimated at 10mg/day. This rises to 30mg/day as from the third term of pregnancy. If systematic iron supplementation is not recommended as a rule, it may prove necessary for pregnant teenagers, in case of repeat pregnancies or major menorrhagia or for women whose diet is poor in heme iron (meat, fish) and, generally speaking, for underprivileged women. In such cases, a 30mg daily intake is recommended as from the beginning of the pregnancy.

■ VITAMIN B9

Folate requirements increase as from the beginning of pregnancy due to maternal tissue expansion, exponential foetal growth and because of the baby's cumulative folate storage (very high levels at birth). Lack of available folates may induce two types of anomalies: anencephalia and spina bifida. It is therefore essential to ensure a daily folate intake of 400µg from the moment a woman expresses the wish to become pregnant all the way through



to breastfeeding. In case of past neural-tube defect history, a 4mg/day therapeutic supplementation should be initiated four weeks prior to conception, to be continued throughout the first two months of pregnancy.

■ VITAMIN D

The recommended daily intake has been set at 10µg of vitamin D per day . Pregnant women tend to suffer from vitamin D deficiency towards the end of their pregnancy, more so if this coincides with winter or early spring. It is therefore essential that they have the best vitamin D level possible, particularly during the third term of pregnancy. However, the possible toxicity of this vitamin should not be disregarded. The recommended supplementation dose is 1,000 IU/day during the last term or 100,000 IU as a single dose on the 7th month.

■ VITAMIN A :

Vitamin A supplementation is inadvisable in pregnant women in view of teratogenic and foetal toxicity risks, even if anomalies have only been observed after administration of high doses (3mg, i.e. 50 times the recommended intake).



QUICK REFERENCE CARD // SPECIFIC ASPECTS OF NUTRITIONAL MANAGEMENT IN WOMEN.

PART ONE: FROM PUBERTY TO POSTPARTUM

PRIOR TO PREGNANCY

Starting phase according to initial BMI and time of planned pregnancy:

	Distant pregnancy	Imminent pregnancy
Obese (BMI>30)	Phase 1	Phase 3C + Folates
Overweight + co-morbidity (diabetes, hypertension, dyslipidemia)	Phase 2 or 1	Phase 3C + Folates
Just overweight	Phase 3	Phase 3C + Folates
Prédisposition au diabète gestationnel sans obésité	Phase 3	Phase 4 + Folates

PREGNANCY & POSTPARTUM

Indicated starting phase according to baseline weight and weight gain. If postpartum weight loss is required, wait for resumption of menses.

Weight before pregnancy	Weight gain for given BMI	Pregnancy /breastfeeding	Gestational diabetes mellitus	Breastfeeding /breastfeeding	Not breastfeeding
Obese (BMI>30) or overweight	excessive	Phase 4	Phase 4/3c	Phase 4	Phase 1/2
	normal	Phase 4	Phase 4/3c	Phase 4	Phase 1/2
Just overweight	excessive	Phase 4	Phase 4/3c	Phase 4	Phase 1/2
	normal	Healthy diet counselling	Phase 4	Healthy diet counselling	Phase 3

TARGET WEIGHT GAINS

During pregnancy, the recommended weight gain depends essentially on baseline corpulence:

Pregestational BMI (kg/m ²)	Recommended weight gain (kg)
< 19,8	12,5 - 18
19,8 à 26	11,5 - 16
26 à 29	7 - 11,5
> 29	> 6

FEMALE MICRONUTRIENT REQUIREMENTS AND THRESHOLD VALUES

The following table provides an overview of "sensitive" micronutrients which should be monitored to avoid possible deficiencies or overloads whilst taking safety threshold values into account.

SITUATION	Micronutrient	Recommended daily intake	Intake provided by 4 Eurodiet sachets/day*	Safe threshold values, per day	Recommended foods
ADULT WOMEN	Vitamin A	600 µg	700 µg	3000 µg ³	
	Vitamin B6	1,5 mg	1,5 mg		100-200g wholegrain cereals 5-10 tablespoons wheat germ 140-300g white meat or fish
	Vitamin B12	2,4 µg	1,4 µg		
	Fer	16 mg	16 mg		80-150g white meat (game) or liver 200-250g pulses (lentils, beans...)
	Iodine	150 µg	130 µg	600 µg ^[3]	Iodized salt 100-200g fish, shellfish, molluscs or algae
	Calcium	900 mg	700 mg	2,5 ³ g	Dairy products (50-100g cheese, 4 yoghurts, 50-100ml milk) 450g bean curd (tofu)
	Zinc	10 mg	9,5 mg	25 mg ³	6 oysters (#3 size) 100g liver 200g wholegrain cereals 15 tablespoons wheat germ
	Copper	1,5 mg	1,1 mg		Pulses Liver
	Magnésium	360 mg	150 mg		100g sunflower or sesame seeds 2 glasses of Donat water 150g molluscs (snails, whelks) 200g haricot beans
PREGNANT OR BREAST FEEDING WOMEN	Vitamin B9	400 µg	NON APPLICABLE	600 µg ¹	10-15 tablespoons wheat germ 120g haricot beans 200g lentils 150g liver 200g watercress, chervil or parsley Dietary supplementation
	Vitamin D	10 µg	NON APPLICABLE	50 µg ³	1 tablespoon cod liver oil 50-100g fatty fish (salmon, herring, sardine) 1 tablespoon cod liver oil Dietary supplementation
	Iron	10mg (first two terms + breastfeeding) 30mg (3 rd term or entire pregnancy if confirmed deficiency)	NON APPLICABLE		60-240g liver 80-300g white meat (game) 100-500g pulses (lentils, haricot beans...) Dietary supplementation

*corresponds to Recommended Daily Allowance for low-calorie diets (EU Directive 96/8)

[1] Conseil Supérieur d'Hygiène Publique de France, section de l'alimentation et de la nutrition. Avis sur les limites de sécurité dans les consommations alimentaires des vitamines et des minéraux. Séance du 12 septembre 1995 • [2] Martin A. Apports Nutritionnels Conseillés pour la population française, 3e édition - Ed. Tec&Doc, 2001 • [3] EUROPEAN COMMISSION HEALTH & CONSUMER PROTECTION DIRECTORATE-GENERAL Directorate C - Scientific Opinions C2 - Management of scientific committees II; scientific co-operation and networks. Scientific Committee on Food. Opinion of the Scientific Committee on Food on the Tolerable Upper Intake Level.

■ Possible deficiency

■ Possible overload

HOW DO I USE PHASE 3 WITH MY PATIENTS?

(Dr Dominique Calvao, Nancy, France)

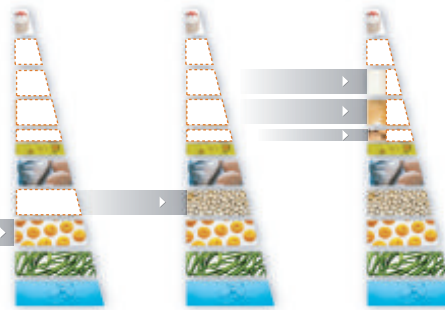
Phase 3 corresponds to a hypocaloric, normoprotein and low-glycemic-load diet that can be used:

- After the ketogenic phases (1 & 2) to gradually reintroduce carbohydrates, step by step, when the objective is nearly achieved or if a break between 2 ketogenic phases seems called for (during Christmas and New-Year celebrations for instance).

- Straight away as a starting phase if ketogenic management is not indicated or contra-indicated or if patients ask for a more "conventional" diet.

I base my phase-3 consultations on the dietary pyramid, showing it to the patients and briefly explaining the rationale behind it. I also use it with patients who consult for the first time, when I ask them for their past 24-hour intake before deciding which type of care would be appropriate for them. As they are recalling what they ate for their last 3 meals, I put a cross next to each corresponding box on the pyramid. This allows me to point out inappropriate intakes and helps me get the patient to understand that he really needs to "return" to the base of the pyramid.

The 3 levels of the pyramid are a good basis for negotiation which I use either to explain the gradual reintroduction of carbohydrates, or, with a patient starting on phase 3, to establish what level of restriction he or she



finds acceptable. Each level, and therefore each consultation, provides me with a good opportunity for giving information on a food group: fruit in 3a, wholegrain cereals and pulses in 3b, refined cereals and dairy products in 3c. This gradual introduction allows me to rationalise my consultation for improved efficacy.

For each meal, menus are constructed using 3a-phase menus as a basis, newly authorised foods being added to each meal for each following level. If a phase 3b has been decided upon, for instance, the last lines in each menu can be deleted as they only apply to phase 3c. Patients generally appreciate being handed a customized document. The latter can also prove useful later on. For instance, when your patient is progressing from phase 3a to 3b, you can use it to illustrate your explanation of the benefits provided by the "wholegrain cereal" group and point out, on the menu page, the corresponding progression for each meal without forgetting, of course, to raise physical activity target levels.

This explanation of menus is a good opportunity to explore the matter of portions for which the "fistful" image often helps get the message across. It provides patients with a yardstick they can use everywhere, even at the restaurant, and spares them the trouble of tedious food weighing.

Once you are done with the "dietetics" part of the consultation, all that remains is to hand the patient his non contra-indication certificate and set the next-level appointment for one month later.

AGENDA

2008 IASO Stock Conference — Sex and obesity: Gender differences in energy homeostasis and fat metabolism. March 30- April 1, Bangkok, Thailand. Email: stock@iaso.org

2nd International Congress on Physical Activity and Public Health. 13-16 April, Amsterdam, the Netherlands

16th European Congress on Obesity 2008. 14 - 17 May, Geneva, Switzerland; Email:eco2008@easoobesity.org



Toute l'équipe Eurodiet vous remercie de votre visite au congrès Ménopause anti-aging 2007 de Vienne (Aus).

TELL US ABOUT IT !

1- What do I do when I receive the Eurodiet newsletter ?

- I read it immediately and keep it for future reference
- I read it and then throw it away
- I keep it to read it later
- I throw it away immediately

Comment : _____

2- The Eurodiet Newsletter is sufficiently readable, well-written and enjoyable to read.

- I absolutely agree
- I rather agree
- I do not really agree
- I absolutely disagree

Comment : _____

3 - The Eurodiet Newsletter is sufficiently practical and I use its contents in my consultations

- I absolutely agree
- I rather agree
- I do not really agree
- I absolutely disagree

Comment : _____

We carry this little survey with the aim of improving our Scientific and Medical Letter, and of better meeting your needs. All your comments are welcome.

4 - I think that the themes identified in the "special focus" are relevant and well treated

- I absolutely agree
- I rather agree
- I do not really agree
- I absolutely disagree

Comment : _____

5 - I find that the "scientific" articles on the front page are well chosen and summarised.

- I absolutely agree
- I rather agree
- I do not really agree
- I absolutely disagree

Comment : _____

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Thank you for your participation. Dr D. PERIN CALVAO.

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