What is the remedy to the physician burnout crisis?

In a live event on the web sponsored by the New England Journal of Medicine, many experts called for leaders to look for a remedy to enhance the camaraderie and the joy and to continue practicing medicine in order to avoid the phenomenon of Burnout. The healthcare system is rapidly changing in an effort to deliver more efficient care, improve health at low cost to an aging population with more chronic diseases and more morbidities. New delivery approaches, electronic health records, patient’s portals etc. have all changed the landscape in delivering care and in documenting data. Re-imbursement has become more difficult.

Navigating the system on a daily basis induce a burden for the physician who struggle with so much changes. They become frustrated and exhausted, resulting in an added pressure on their life style. The phenomenon of burnout brings with it, a sense of depersonalization and exhaustion while the physician exhibits a low sense of accomplishment and a poor self-esteem at work.

The term “Burnout” was coined by a German-American psychologist Hebert Freudenberg who defined it as a physical or mental collapse caused by work or stress. It was identified 30 years ago as a state of fatigue and frustration among health and service workers, arising from excessive demands on their resources. It is a world phenomenon for which each country has their way in approaching the problem. In United States of America, an epidemic of physician burnout is hurting our doctors, costing American healthcare

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organizations, billions and placing patients at risk. Stephen Swensen MD, a medical director of professionalism and peer support at Intermountain Healthcare, stated in a keynote speech that “if we promote care in a system that does not allow us to choose for ourselves, this creates a moral distress and values dissonance and professional burnout”.

The Mayo Clinic advocates for giving physicians a sense of control over their work and schedules as key tool in reducing burnout. A little more than half of physicians (54%) now show at least one symptom of burnout, up to 10% over three years. Physicians working in their specialties at the front lines of healthcare (medicine, family medicine, general internal medicine, neurology) are among the highest risk for burnout. Emergency medicine physician are the most burnt out with 60% according to the AMA in 2013. More than 7% of nearly 7000 physicians have considered suicide. (Reuters). Severe studies have found that medical students and residents have a high rate in depression compared to others of age similar pursuing other professions. Studies on Nurses, Nurses-Practitioners and Physician-Assistants have demonstrated similar results and the rate of depression may be as high in this group of professionals.

Burnout is twice as prevalent among physicians as US workers in other fields. Between 2011 and 2014, the prevalence of burnout increased by 9% among physicians while remaining stable in other US workers. Medical students and residents in training were found to be affected at a higher prevalence in burnout when compared to age-similar individuals pursuing other careers. More, they were likely to be sleeping on the wheel returning home from duty.

We all will face burnout at a certain time in our practice. Elizabeth Ames MD reported in the Journal of Bone and Joint Surgery that all orthopedic leaders, colleagues, and learners have shown a steady increase in burnout during their medical education. On another side, the incidence in burnout among orthopedic surgeons ranged from 50 to 60% according to Wayne M Sotile PhD at the center for Physician Resilience in Davidson, NC. He believes that the burnout phenomenon can increase the probability of surgical errors, career dissatisfaction and even discord in the home and in the family.

Indeed, researchers at the American College of Surgeons found that when Burnout rise in incidence, there is an 11% increase in chances to make a surgical error. Physicians become more prone to make mistakes because they are more likely to be dissatisfied, and unhappy at work. John Kelly MD, an editorial board member in Orthopedic Today, goes further to argue that physician burnout renders patients as well, less compliant. In anyway, burnout impairs the quality in delivering care.

A direct relation is encountered between Burnout and medical errors bringing malpractice suit to the group of physicians suffering from the syndrome. Inversely, self-perceived medical errors were found also to fuel the burnout phase. Suicidal ideation, Alcohol dependency are often present as well in the picture.

Simply, patients become less happy in their patient/physician relationship. Many institutions have also provided help to the physician in distress, creating dialogues between physician-leaders and non-physicians in order to improve efficiency and effectiveness at the work place. Orthopedists or other physicians who feel “burnt out” may need to re-think their career in discussing issues with their partner or spouse.

Therefore, it is important for physicians to look for help among their co-workers and discuss when it may be time to take a break. Some suggests to practice yoga, mindfulness, relaxation techniques, exercises and fitness. Many believe that Burnout can be prevented in learning how to say no, in protecting family relationships but, in one word, in re-learning how to enjoy life. Orthopedists or other physicians need to accept the concept that there is a problem and they need to be willing to look for help.

Consider counseling and participate in wellness programs as well as in stress management programs. Researchers in 1981, have tried to use the Maslach/Jackson Burnout Inventory (MBI), as a gold standard tool for measuring “Burnout syndrome”, defining it in three components: an emotional exhaustion, a depersonalization and a low personal accomplishment. This test can be taken in 15 minutes individually or in group but more is needed in the work place and in the environment to complete the study. A recent advertised leadership
Retreat is being scheduled in Seattle WA, encouraging physicians to lead the wellness movement in their organization in offering 3-5 days of training (13 CME), Wellness tools for all, and free Resourcing for a support system. I encourage you all to attend in the goal to become an effective Physician Wellness Champion.

Thinking about medical school, may force our students to avoid specialties considered too stressful especially when a recent survey from the AMA showed 42% of the students with signs of being burnt out and 15% admitting clinical signs of depression. My young daughter Carolyn Lara just joined the St George University Medical school, in Grenada. I wish her luck and hope that she will find strength to treat the people of my generation. She appears enthusiastic and ready for the Job.

It is a fact that, too many bureaucratic tasks at work, added to an increase in computerization within the practice and insufficient compensation which may trigger this burnout syndrome. On the positive side, we have to say that the vast majority of physicians are happy with their career choice and more than half of practitioners still recommend others to pursue medicine. We, physicians are not tired of practicing but only experiencing difficult time to adjust to the daily workload. To all, still in practice, be prepared to manage this problem because the US Department of Health and Human Services predicted that by the year 2025, the nation will face a shortage of nearly 90,000 physicians, many retiring from practice and other suffering from the burnout syndrome.

Imagine a little, the cost an employer will have to incur to recruit for more physicians. The healthcare system is in crisis already but a fortune will be spent to replace such professionals.

Be strong daughter Carolyn Lara Coles, we have our eyes over you and know that you will be able to face the challenges while practicing the Art of Medicine. I have learned already that passing less time in the office or in the books has allowed us to perform any sport or activities we keep at heart; This will help us, physicians, to avoid this phenomenon of burnout that many of us are facing. Always be happy, play chess, use your camera to understand mother Nature, study as much as you can the lessons which will help you reach your goals, but find time to enjoy life as well.

Maxime Coles MD

References:

3- Massachusetts Medical Society daily update: “A crisis in Healthcare: A call to action on physician burnout” 1-1-2019
Entre regrets, hesitations et insatisfactions:

Une femme Septuagénaire est venue me voir à mon cabinet de consultation l’autre jour. Elle cherchait à renouveler sa potion mensuelle d’anti-déprimants et d’anxiolytiques. Plutôt que de parler de l’efficacité des médicaments ou de leurs effets secondaires sur le traitement que nous suivons ensemble, elle semblait avoir du mal à se déplacer de mon carré, cherchant coute que coute à se décharger de je ne sais quoi. Je l’ai alors invitée à se rasseoir et à rester un peu plus longtemps. Je me suis souvenu aussitôt que d’habitude les patients viennent chercher bien plus qu’une ration mensuelle de médicaments mais que derrière l’intérêt principal se cachent souvent d’autres motifs inavoués qu’il revient à tout bon médecin de pouvoir déceler.

En général, les patients vont chez le médecin pour être rassuré de leurs maux qui les rongent tant sur le plan physique que sur le plan moral et au plan mental. La vieille dame m’a dit qu’elle est très effrayée pour l’avenir de ses petites filles car elle ne voudrait pas qu’elles prennent la route qu’elle avait elle-même choisie du temps de sa jeunesse. Elle m’a apprit tout de go qu’elle a grandi dans les années soixante et avait mené une vie de libertinage presque sans pareille, qu’elle était une jeune rebelle qui n’hésitait à briser aucun tabou sociétal mais que, plus tard dans la vie, elle avait fini par trouver Dieu, par tout changer et par se faire une nouvelle vie. Malgré le nombre d’années qui se sont succédées depuis cette époque fébrile d’activités et de revendications de toutes sortes, et que les sociologues appellent de bon droit « le American dilemma ou le dilemme Américain », elle n’arrive pas à se défaire de sa route qu’elle avait elle même choisie du temps de sa jeunesse. Elle m’a apprit tout de go qu’elle a grandi dans les années soixante et avait mené une vie de libertinage presque sans pareille, qu’elle était une jeune rebelle qui n’hésitait à briser aucun tabou sociétal mais que, plus tard dans la vie, elle avait fini par trouver Dieu, par tout changer et par se faire une nouvelle vie. Malgré le nombre d’années qui se sont succédées depuis cette époque fébrile d’activités et de revendications de toutes sortes, et que les sociologues appellent de bon droit « le American dilemma ou le dilemme Américain », elle n’arrive pas à se défaire de sa route qu’elle avait elle même choisie du temps de sa jeunesse. Elle n’oserait même pas dire à ses deux filles la vraie personne qu’elle était de peur d’être jugée par elles.

Je l’ai écoutée avec une grande affection car je savais bien qu’elle cherchait une chose introuvable. Chacun a quelque chose dans son passé qu’il aimerait corrigir ou effacer. Notre vie oscille souvent entre regrets, tergiversations et larmoiements. Nous nous jugeons souvent à posteriori, oubliant qu’il n’y a pas de bon ou de mauvais choix dans la vie et que le seul vrai choix est celui qui mène à la réussite. Tel homme choisit une voie et réussit admirablement; un autre en vient à faire les mêmes choix de voies et moyens et échoue lamentablement. C’est comme être parent, on sait qu’on a fait un bon travail seulement si les enfants réussissent dans la vie. En effet, lors même que l’on aurait toute la vie pour apprendre, on ne finirait jamais de maitriser un si grand Univers. Nous sommes faits pour commettre des erreurs et pour apprendre de nos erreurs. Quand elle m’a apprit que ses deux filles ont une vie normale et un foyer stable, je lui répondis que cela aurait dû être pour elle une vraie raison de fierté. J’ajoutais que chaque génération aura des problèmes à surmonter. Celle de ses filles, comme la sienne d’ailleurs, ont bien fait la paix entre elles et avec elles-mêmes. Alors, celle de ses petites filles, elle aussi, finira par trouver la voie appropriée. Il n’y aura pas une fin du monde. C’est notre monde à chacun de nous qui passera. Sur le Passé qui nous revient a chaque pas, tel une trainée de poudre emportée dans nos semelles, il y a toujours de la place pour un regard rétrospectif ou souvent se mêlent un peu de tout : regrets, hésitations insatisfaction, joie, amour, paix etc.; Et ou parfois la mémoire du passé est si horrible qu’on voudrait la déchirer voire l’effacer. Comme quoi briser un thermomètre suffirait à faire baisser une poussée fébrile. Mais rien n’annihila ce que nous sommes. Ce que nous sommes c’est un être en devenir qui se refait à chaque instant, au gré du temps et des circonstances.

Après cette riche et enrichissante conversation, madame s’en retira plus ou moins allégée, soulagée, comprenant désormais qu’elle doit vivre chaque jour essayant d’intégrer sa vie passée dans le présent, et de tirer de ses erreurs passées les leçons indispensables a son avenir. D’ailleurs, C’est le seul moyen de faire la paix avec soi-même si l’on veut regarder l’avenir avec un brin d’optimisme.

Rony Jean-Mary,M.D.
Coral springs, Florida ,
le 11 Fevrier 2019
Dietary intervention for good health.

Reynald Altéma, MD

On the face of it, it would seem a no-brainer the subject of dietary intervention to promote good health. We all know of the recent epidemic of obesity in our youth, the explosion of diabetes. A lot of it due to jumbo-sized servings offered by fast food chains. When the rubber meets the road, the ask is made all the more difficult by competing and convincing beer and fast food commercials. If this were not burdensome enough, wading into the matter of diet and health promotion is ever so humbling as there are conflicting data and the situation remains fluid. Accepted dogmas keep being upended. The alternative to promotion of good health is the hoist of the white flag and that cuts against the grain of our oath.

Dietary evaluation sits at the intersection of sacred cultural habits bordering on jingoism, commercial interests purveying information to stroke vanity and monetize on gullibility. Adding fuel to the fire, it enmeshes in the crosshairs of the latest fad accepted with religious fervor. It is not by chance that there is a whole cottage industry promising miracle weight loss with an alphabet soup of names from Atkins to Zone.

This review is meant to ask some pointed questions without any known answers yet and will point out some unexpected findings. Again the matter is not as simple as we would like to believe. There are a lot of confounding factors and at times it is difficult to isolate one single factor. However, it should be remembered that a food group should never be lionized or demonized.

A meticulous approach demands that one looks at population studies to help sort out some of the confusing data (table 1).

<table>
<thead>
<tr>
<th>Country</th>
<th>Rate/100,000</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turkmenistan</td>
<td>411</td>
<td>1</td>
</tr>
<tr>
<td>Russia</td>
<td>392</td>
<td>8</td>
</tr>
<tr>
<td>Guyana</td>
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<td>Haiti</td>
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<tr>
<td>Ghana</td>
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<tr>
<td>Trinidad</td>
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<tr>
<td>India</td>
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<tr>
<td>Dominican Republic</td>
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<tr>
<td>Greece</td>
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<td>Argentina</td>
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<td>Malta</td>
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<tr>
<td>Cuba</td>
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<td>USA</td>
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<td>Italy</td>
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<td>Kenya</td>
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<tr>
<td>France</td>
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<tr>
<td>Japan</td>
<td>40.59</td>
<td>182</td>
</tr>
<tr>
<td>South Korea</td>
<td>30.76</td>
<td>183</td>
</tr>
</tbody>
</table>

Table 1 (worldlifeexpectancy.com)
The data are interesting. Russia and its former republics hold the top 10 spots. India has a high rate of mortality even with the highest concentration of people on a vegan diet. Mediterranean ring offers a wide spread of mortality rate from the very low of France to the high of Greece’s, ahead of Cuba’s. The case of India will be addressed later because it is so unexpected. One needs to keep in mind that diet alone doesn’t tell the whole story. Smoking, exercise or lack thereof, genetics and other not yet well-defined factors make a lot of difference.

A recent study tried to evaluate if there is such a phenomenon as the perfect diet and looked at several groups of hunter-gatherers that have the lowest rate of cardiovascular disease in the world. In *Obesity Reviews*, Pontzer et al (5) looked at the Hadza of northern Tanzania, Tsimane of the Amazon and Shuar of Ecuador and found out a very low rate of cardiovascular illness (hypertension, diabetes, stroke, MI). Their diet varies from one another but tends to include a lot fiber, primarily as tubers but it also includes carbs, red meat. Walking is a very important aspect of their daily lives.

In their surroundings, they tend to die of infectious illnesses and carry a high infant mortality because of it. Yet when the Tsimane move from their traditional environment to city life and its new dietary regimen, they become highly susceptible to diabetes. In the US, a similar pattern is observed among the Pima Indians of Arizona (3). They have the highest rate of diabetes and diabetic complications in the country whereas their cousins in Mexico who live the traditional life and consume centuries-old diet have no such issue. The lesson to be learned is that traditional diet includes low salt, low glycemic index carbs, low total calories as well as constant physical exercise (one caveat though; this present study shows that Total Energy Expenditure, TEE, is not that much different between hunter-gatherers and city dwellers). Modern city dwellers tend to overeat and also consume a lot of ultra-processed foods and snacks. There is a modern concept called “sensory specific satiety.” It refers to the fact that our exposure to so much food, say at a restaurant, makes it harder to become satisfied even when we are full; we still get the dessert though we don’t need it or don’t still feel hungry.

**Fats.**

Cholesterol, saturated fats have had a bad name for quite a long time with scientific evidence either exaggerated or ignored. Basic science teaches us that cholesterol is very important for good health as it makes up our cell wall. This is especially so for our brain where 50% of its dry weight is cholesterol. The original sin took place when the association of atherosclerosis was twinned with cholesterol; from then on cholesterol is primarily seen through jaundiced eyes of a bad molecule. This is not supported by scientific data. The question we need to ask is the following: what’s the pathophysiology of atherosclerosis?

The fundamental inciting injury is endothelial dysfunction and this sets up a cascade of events (2). The production of NO is inhibited and this causes an inflammatory process that feeds on itself. Monocytes, T cells combine with defective endothelial cell creating oxidative stress. LDL becomes oxidized, binds to this matrix and then a foam cell is formed (fatty streak). Macrophages secrete additional proinflammatory cytokines—the list of cytokines keeps growing as we learn more— and smooth muscle cells join the fray and start replicating and the process continues. There is plenty of blame to be shared by the system including oxidized LDL, monocytes/macrophages and other cytokines, leading to plaque formation. The plaque can be stable or unstable and subject to rupture and causing thrombosis/occlusion. Concentrating on only LDL misses the point. It is an easy marker to screen and detect but by no means is it the sole or prime suspect. This concept is important to understand because the inflammatory cascade is the fundamental culprit that needs to be stopped to arrest the progress of the process. It comes as no surprise that illnesses associated with inflammation/endothelial dysfunction are known to cause atherosclerosis: diabetes, hypertension, as well as bystanders such as dysfunctional LDL/HDL, low lipoprotein(a), high level of homocysteine. Other predisposing factors are excess alcohol, Chlamydia infection, visceral fat (even in the absence of obesity) and a sedentary lifestyle. What exactly is meant by dysfunctional bystanders?
• **LDL.** Total LDL cholesterol doesn’t tell the whole story. It needs to be subtyped. It comes in either pattern A or B. The latter is the small dense type and the one more likely to sink and become oxidized and become involved in plaque formation.

• **HDL.** It comes in 10 subtypes. The large subtypes are cardioprotective whereas the small dense ones are not. It used to be taught that the higher the HDL, the better. However, a recent study points toward a U-shaped curve where protection diminishes as level of HDL rises above 97 for men and 137 for women (4). This was done in Denmark. It is not yet clear what the implications are but suggestion of dysfunctional HDL, i.e. small dense HDL maybe at play. This adds another layer of puzzle.

• **Lipoprotein(a).** A high level (>50mg/dl) triples the risk of Acute Coronary Syndrome in patients < 45 years of age and is not much of a factor in patient> 60 yrs. It is not modulated by diet or exercise (1).

• **Triglycerides.** The exact mechanism is not well known but elevated level seems to be another independent risk factor, especially in women.

• **Saturated fats.** They are either saturated (SFA), monosaturated (MFA), or polysaturated (PUFA). Saturated fats come from animal origin: meat, poultry, dairy, egg as well as coconut, palm or kernel oils. MFA include canola, nut, olive oils. PUFA include safflower, sunflower, sesame, corn soybean oil (8). Trans fats are usually commercially made from PUFA and carry cardiotoxicity. SFAs are further divided into short, medium and long chain. Long chain fatty acids tend to be stored into adipose tissue while medium and short fatty acids are used and not stored. Coconut oil contains 90% of saturated fatty acids and more than 50% of that in the form of form of lauric acid, a medium chain fatty acid. Coconut oil is thought to be cardioprotective, but this issue is not yet settled with some holding the view that as saturated fat it should be cardiotoxic.

• **Homocysteine.** The association of elevated homocysteine, an amino acid and atherosclerosis is significant for historical reasons because it’s a window into professional bias that can prosper even at the highest academic institutions. A young pathologist, a Harvard graduate, Kilmer McCully, MD, made the discovery in the mid-sixties that in young children with congenital homocystinuria, homocysteinemia caused premature atherosclerosis (15). Furthermore, homocysteinemia can be corrected by taking B vitamins. At the time- even today- the prevailing dogma of lipids as the sole source of atherosclerosis was gaining steam and his own theory that homocysteine was also an independent mechanism of such a process was considered anathema and he eventually lost his position as a faculty member at Mass General and Harvard. Nowadays, it is an accepted factor that can contribute to atherosclerosis and cryptogenic stroke. It competitively binds to atheroma preventing plasminogen to interact and hence enhances thrombosis (13). A diet devoid of vitamin B₁₂ can accelerate the process of atherosclerosis over time despite the enterohepatic recycling of B₁₂, because both B₁₂ and B₆ help in the breakdown of homocysteine into methionine and cysteine respectively.

• **Chlamydia.** Its exact role is not well elucidated but plaques tend to test positive when compared to control (10). Could it be playing a role more important in countries with high load of infectious diseases?

• **Alcohol.** The association of alcohol and atherosclerosis is particular and follows a J-shaped curve (14) where small daily consumption (<50gm) and high dose is cardiotoxic. Table 1 offers some tantalizing evidence. In Russia where alcoholism is rampant (along with cigarette smoking), mortality from MI is high while in France where the consumption of moderate amount of red wine is prevalent, the mortality is low. More often than not, consumption of alcohol is tends to be more on the heavy side than the moderate throughout the world. A dose-dependent action of alcohol on oxidized LDL seems to be at play. All of the cardiotoxic cytokines share the feature of oxidative stress capability. This ability starts a cascade of inflammation that is detrimental to the endothelium and sustains itself in a vicious cycle. Several pathways exist and several noxious agents exist. It is not a one-size-fits-all scenario. Our system is far smarter than that!

### Carbs.

Carbs have displaced fats as the latest villains. Again, the science doesn’t support this notion. What it does tell us is that there are carbs necessary for healthy living such as fruits and vegetables and there are others that can cause a rapid rise of blood glucose and consumption of such can lead to weight gain and its complications. The fundamental issue is the rapid rise of glucose. This causes release of Insulin and if there’s resistance at the cellular receptor level, then the pancreas keeps producing more of it. Insulin is an anabolic hormone and causes weight
gain. As a matter of fact, chronic insulinenia and good health are at opposite ends. There’s now the concept of glycemic index, how quickly a given carb will induce a rise of glucose. The higher the number, the more it needs to be avoided. The following table lists a few carbs with their indices.

<table>
<thead>
<tr>
<th>GRAINS</th>
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<tbody>
<tr>
<td>Quinoa</td>
<td>53</td>
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<tr>
<td>Brown rice, boiled</td>
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<tr>
<td>White rice</td>
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<tr>
<td>Bulgur</td>
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<tr>
<td>Basmati rice</td>
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<table>
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<tr>
<th>DAIRY</th>
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<tbody>
<tr>
<td>Reduced-fat yogurt</td>
<td>33</td>
</tr>
<tr>
<td>Ice cream, regular</td>
<td>54</td>
</tr>
<tr>
<td>Milk, full fat</td>
<td>41</td>
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<tr>
<td>Milk, skim</td>
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<table>
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<td>Chickpeas</td>
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<tr>
<td>Kidney beans</td>
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</tr>
<tr>
<td>Lentils</td>
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<tr>
<td>Soya beans</td>
<td>16</td>
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<table>
<thead>
<tr>
<th>VEGETABLES</th>
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<tbody>
<tr>
<td>Potato, boiled</td>
<td>78</td>
</tr>
<tr>
<td>Sweet potato, boiled</td>
<td>63</td>
</tr>
<tr>
<td>Plantain</td>
<td>55</td>
</tr>
<tr>
<td>Carrots, boiled</td>
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<table>
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<tr>
<td>Apple, raw</td>
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</tr>
<tr>
<td>Orange, raw</td>
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<tr>
<td>Banana, raw</td>
<td>51</td>
</tr>
<tr>
<td>Mango, raw</td>
<td>51</td>
</tr>
<tr>
<td>Watermelon, raw</td>
<td>76</td>
</tr>
</tbody>
</table>

Table 2 (health.harvard.edu)

Diet.

- **Vegan.** It falls into 2 groups: lact-ovo-vegans who consume eggs and milk and strict vegans that avoid them. The advantage of this diet is its anti-inflammatory property and as such its cardioprotection. A strict vegan diet has the drawback of vitamin B12 deficiency long term, if it’s not taken separately. This is important.

- **Mediterranean.** This type relies on a combination of fish, grains, olive oil, fruits, nuts with or without limited use of red wine. This diet is cardioprotective. However, table 1 shows there’s still variable mortality rate. In France where the use of red wine is prevalent has a low rate but other countries such as Greece, Malta have a much higher rate.

- **Ketogenic.** Although it is a recent craze as a means of weight loss, it has been around for almost 100 years. It was first introduced in 1921 as a therapy of epilepsy in kids. It lost favor when antiseizure medications were found. As an option of losing weight, it gained popularity in spite of initial medical reticence to condone it. The idea of using fats to lose weight certainly upended orthodoxy. In medicine, ketone bodies are usually associated with cellular starvation in DKA and alcohol-induced lactic acidosis. Ketones can be harmful to the neurons. The very idea of using fats to lose fat didn’t sound right. However, people doing it were successful in losing weight. Since then more has been learned about it.
Instead of starvation ketosis that is harmful, what is created is *nutritional ketosis* and it has a diuretic effect and initial weight loss is due to water loss, then it is followed by fat loss because fat stores are reduced (9). Basically, we are fooling the body and forcing it to use fats as the prime source of energy. Incidentally, myocardium normally uses fatty acids rather than glucose as a prime source of energy—in fact that’s the rationale of using L-carnitine in patients with cardiomyopathy because it catalyzes the breakdown of fats by myocardium and enhances energy utilization by the starving myocyte. Symptoms occur within the first 2 weeks such as diarrhea, vomiting, weakness, muscle cramps, etc. It is called “keto flu.” Beyond 2 years of staying on this diet, there’s no data about its safety. Up till then, a low carb, high fats, low protein diet is found to be safe, albeit with the initial keto flu.

- Low carbs vs. low fat. In obese, type 2 diabetics, both achieve the same weight loss, reduction of A1C after 1 year. Low carb diets tend to increase HDL slightly, increase in insulin sensitivity. Low carb diets associated with plant-based fats and protein carry lowest mortality (fat vs. carbs).
- No discussion about modulation method is complete without mentioning the gut. It is now well established that the gut microbiota heavily influences our overall health. Studies done on hunter-gatherers proved that a diet heavy in fiber is associated with an anti-inflammatory population of bacteria in the gut. Since inflammation is the very process we want to stop or arrest, it behooves everyone to consume as much fiber as possible and most certainly population at risk should indulge. See Table 3 for examples of high fiber containing food.

<table>
<thead>
<tr>
<th>Dandelion Greens</th>
<th>Apple</th>
</tr>
</thead>
<tbody>
<tr>
<td>Garlic</td>
<td>Cocoa</td>
</tr>
<tr>
<td>Dried figs</td>
<td>Sweet potato (especially with skin on)</td>
</tr>
<tr>
<td>Onions</td>
<td>Leeks</td>
</tr>
<tr>
<td>Asparagus</td>
<td>Bananas</td>
</tr>
<tr>
<td>Oats</td>
<td>Wheat bran</td>
</tr>
<tr>
<td>Baked beans</td>
<td>Almonds</td>
</tr>
<tr>
<td>Broccoli</td>
<td>Artichoke</td>
</tr>
<tr>
<td>Whole-wheat bead</td>
<td>Whole-wheat spaghetti</td>
</tr>
<tr>
<td>Pistachio nuts</td>
<td>Carrots</td>
</tr>
<tr>
<td>Strawberries</td>
<td>Sweet corn</td>
</tr>
</tbody>
</table>

Table 3

The above will help us decipher some additional population studies. India as stated previously has a large population of people on a vegan diet, yet it has a serious epidemic of cardiovascular morbidity. Prabhakaran (7) and Bajaj (6) report the intake of fruits and vegetables is minimal, especially in rural areas and smoking rate is rising. Lack of vitamin B₁₂ in the diet is associated with increased risk of cardiovascular disease via accumulation of homocysteine. Indians even when not obese have visceral fat and this is cardiotoxic. A surrogate marker is obtained by measuring the waist to weight ratio. A vegan diet, despite all its benefits, by itself is not a panacea. We always need to remember that there’s no panacea.

Smoking as a risk factor can’t be overlooked. González-Pacheco (11) in his study points out that cigarette smoking is the most prevalent risk factor in a study done in Mexico City. While the rate of smoking is declining in the US, the opposite trend is noted in other parts of the world, Latin America, Africa and Asia. This represents a major public health dilemma. It’s also an interesting finding in his study that total cholesterol of patients coming with Acute Coronary Syndrome (ACS) was elevated in 24% of cases but dyslipidemia accounted for 85% and low HDL was the most common abnormality. The association of cigarette smoking and dyslipidemia is well established (12). Gepner’s data show that cigarette smoking affects HDL primarily. And of course the usual culprits of hypertension and diabetes were also present in González-Pacheco’s study.

With all of the above, what can we suggest as nutritional therapy? Any recommendation has to take one’s cultural culinary preference into account. Asking a rice eater to quit using rice is not practical; however, one can suggest a qualitative-basmati over white rice- as well as a quantitative change. There’s no controversy about the combination of fruits and vegetables servings (5/day). There’s no controversy about a high fiber diet, low consumption of alcohol. 1 glass of red wine a day is helpful for the heart, that explains the low death rate of
France from MI. Cigarette smoking is a major cardiovascular risk factor. There is an alarming rate of increased consumption of cigarettes in the developing world and latest reports point to the fact noxious substances that wouldn’t be allowed in Switzerland are finding their way into cigarettes produced by that country being exported to the third world countries. Physical activity is a must.

Considering the difficulty to change one’s culinary habits, it would be best to recommend drastic changes to people at highest risk. For example, a diabetic or someone recovering from MI or with known coronary artery disease should be educated about the benefits of a vegan diet. At least it’s an option worth considering.

Fat consumption is a bit controversial. The available evidence is that processed meats such as bacon, sausage, spam, trans fats are cardiotoxic. Avoiding animal fat altogether is not supported by the evidence. The evidence strongly supports the idea of using a diet that relies on a variety of nutrients with a high content of fruits, nuts, vegetables, grains, à la Mediterranean diet is compatible with good health. Palatability is always a factor to be considered. A healthy but not so tasty menu will invariably lead to cheating.

Last but not least, exercise on a regular basis needs to be part of the routine. Sugary drinks that have no nutritional value should be minimized or avoided. Highly processed carbs should also be avoided. High fiber diet is highly recommended.

References:


President Message: Make the AMHE relevant

It will be soon 47 year since AMHE has been in existence. We, Haitian healthcare professionals, should be proud to have such an organization with so much potential. We should all use the venue of AMHE to make an impact in the healthcare system in Haiti, the main vision of the founding members. Individually, we make a difference in people’s life every day. Some of us go on medical missions, support different projects in Haiti. Those great initiatives are commendable and should be encouraged. However, focusing on projects that can have a long term effect in the healthcare system in Haiti will give us a greater return on our investment. That is why I asking you to support the Family Medicine training program at Hôpital Justinien, Cap-Haitien, Haiti.

Two active and dedicated AMHE members, Dr. Michel Dodard and André Vulcain from the University of Miami have used their position in the US to help improve the healthcare system in Haiti by supporting a residency training program in Family Practice in Haiti. So far, they have trained 60 family physicians who have been practicing in different provinces of Haiti. Unfortunately, the program has been losing the support of its main donors and is at risk of closure unless there is some infusion of new funds. This is one thing that AMHE as an organization cannot allow to happen.

This crisis in the Family Residency program in Haiti gives us members of the AMHE the opportunity to show how powerful we can be when we pull our resources together for a noble cause. To that end, I urge you (who is reading this page) to donate immediately the value of one day income to the AMHE Foundation. If every reader were to participate in this fund drive, we will have enough fund to support several healthcare projects in Haiti and make AMHE more powerful and relevant.

J. Roosevelt Clerisme, M.D.
President
Mango

No view certifies tropical haven better
Than this regal tree billowing in the wind with no fetter.
No simple pleasure rivals a leisure under its shade,
Siesta on a rocking chair or in a hammock,
Far from city-life gridlock,
Priceless rest of highest grade!
Or beckoning activities like playing dominoes,
Cards, a pick-up ballgame, while feted by cackling crows.
Aiding and abetting living beings, ubiquitous
Being, easily grown from a seed, so fortuitous.

No sight equals the palate’s delight like its fruits-filled
Branches, floating from stalks, bouncing with breeze,
Inviting epicurean frothing, drooling worth its tease,
Anticipation living up to its billing, when desire is fulfilled.
Rainbow hues from canary to burgundy and various shades of green,
In any permutation of tints and tones, well shone
Visual-art pieces, painted by artists known and unknown.
Riveting aroma when riven from its stem, lust mixed with sheen.
Mango eating is a feast prized by its connoisseurs,
Best done with bare hands and sharp incisors,
Informal setting enliven zest for delectation,
Fruit’s zest mild sting just a banal exaction.
Its flavor titillates our tasting buds
With its luculent succulence, scrumptious, delicious suds,
Syrupy fingers, entrenched into its flesh, firm, soft or stringy.
Teeth scalping its ripened skin with a rhythm steady and swingy,
Never mind staining aftermath on clothes,
Caking on skin, strings-filled teeth, minor throes
For the gustatory satisfaction clamoring for more.
Satiety losing to voracity, like the fun of running a score.
Self-cleaning or preening thereafter far from being a chore
Is held to the altar of its allure and part of the lore.
Mango eating, ritual *sans pareil*, heralded custom,
An inveterate wont, from our soul hard to eviscerate!
An edict over which no need to deliberate,
May or June without this swoon is difficult to fathom!

Temperature sensitive, still territorial, in overwhelming varieties
Peerless, in kingdom of fruit bearing trees
From dwarf size to banyan dimension
Seasonal to perennial, a marvel of a creation
Worthy of celebration, by scientists and poets alike
Easily grafted, extensively studied, a wonder I like.
Dear AMHE members, family, and friends;

Contribute to the AMHE Sickle cell Clinic in Leogane NOW at Gofundme.

AMHE is seeking to raise $200,000.00 to Build the Clinic. We are waiting for your contribution.

1) We have created a Gofundme; your generous tax-deductible donations, earmarked for the clinic, will be sent to the AMHE Foundation and a receipt mailed to you.
2) Forward this message to your friends and family, promote it on your Facebook, Twitter, Instagram and any social media you use.
3) You can also send your contribution by check made payable to the AMHE Foundation and mailed to:
   AMHE, Incorporated
   1166 Eastern Parkway, 2nd Floor
   Brooklyn, NY 11213
4) Ask friends and family to donate by sending them the link above
5) Add a link to this project on your Facebook page

Sincerely,

Maxime Coles
Maxime Coles M.D., F.I.C.S., F.R.C.S., F.A.A.N.O.S.
Orthopedic Surgeon and Traumatologist
AMHE Central Executive Committee Past President
AMHE Board Of Trustees

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Articles parus sur la page Facebook de l’AMHE durant la dernière semaine

Slideshow: A Visual Guide to Carpal Tunnel Syndrome - 126 years from tigoave. - Tuberculose Intestinale - After Nearly Three Decades, MED Pediatrician Nicole Prudent to Retire - With Monseigneur Sansariq in Newyork this weekend to discuss the contribution of the Haitian Diaspora in the American Society. - AMHE Panama Medical Convention 2011 (Courtoisie Maxime Coles) - The Pri-Med meeting went well at the convention Center of Fort Lauderdale from the 7-10 February 2019. - Urgent need for an anesthesiologist at St Croix hospital of Leogane. MC And more…
INVITATION.
A LA CELEBRATION JUBILAIRE DE LA PROMOTION DU DR. COICOU


POUR LE COMITE, VEUILLEZ CONTACTER LES PERSONNES SUIVANTES :

DR. GLADYS DUCHATELIER.
DR. JACQUES SAJOUS.
DR JEAN-MARIE EUSTACHE.
ET LE DOCTEUR KYSS JEAN-MARY.
EMAIL NICOLEETKYSS@YAHOO.COM. TELEPHONE :(509)36028263