RESPONSIBLE EATING AND REJUVENATION FOR HEALTHY RETIREMENT

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Abstract
The paper looked at the concept of responsible eating, its relationship with healthy living and how it can be successfully practiced at the different stages of growth unto retirement. It also addressed the consequences of irresponsible eating and its cumulative effect over time especially during aging and retirement. Irresponsible eating was found to result in buildup of sugars, food additives, free radicals and toxic substances in the body and its corresponding health implications over time. The paper indicated the possibility of cell renewal or generation from food nutrients through consistent responsible eating which can reverse the ill – health indicators through rejuvenation of body cells. The steps to rejuvenation, foods needed for cell regenaration as well as other conditions necessary for sustainable rejuvenation were discussed. Rejuvenation is possible through consistent responsible eating before, during and after retirement. The paper recommended among others that cell renewal and cell generating diets should be adopted through daily responsible eating habits to prevent and manage the aging process and the degenerative diseases for healthy retirement.

Keywords: Responsible Eating, Rejuvenation, Healthy Retirement

Introduction
Food is one of the most important basic necessity of life, when food is eaten it is digested, absorbed and used for nourishment of the body cells for growth, repair and regulation of body functions. The nutrients needed in the body depends on the age, sex, body, size body activity and health conditions of the person. Various age groups have their nutrient needs. Infants depend on breast milk which is provided by nature to suit them. The food choices we make daily can influence our health negativity or positively. When these daily choices are repeated over the years, it becomes our food habits. Negative food choices can arise from carelessness and gluttony with serious health consequences. Also wrong food choices from the formative stages can be a major contribution to some prevalent chronic diseases later in life. This calls for proper preparation for the aging period through responsible eating.

Concept of Responsible Eating
Eating in the act of putting food in the mouth, chewing and swallowing. There are several reason why food is eaten which include for :growth, proper body functions (e.g breathing, digestion, warmth), repair of the worn out cell of the body, healthy immune system, maintenance of chemical composition of the cell, satiety, peak performance, good mood, improvement of our health and well – being for continued existence, to save money for life insurance and for fun (Obobokhai & Uko-Aviomoh, 2020) Food should be hygienically handled during food preparation and served with clean food utensils in a clean environment.

Eating is serious business. Adequate time should be allocated to eating in a relaxed environment. The quantity and quality of food as well as the frequency of food intake over time determines the health status of an individual. It calls for regulation of portion size, avoidance of cravings and gluttony –This is the road map to responsible eating.

The term “responsible” means ability or power to control or manage. It Implies accountability in the various circumstances of life. It is a duty or an obligation to satisfactorily perform or complete a task assigned to someone. (Thomas and Wilson, 2012). Responsible eating means making healthy choices for right foods to eat. It involves taking health choices into one’s hands and being conscious of what you eat, where it comes from and what effect it has on health (Mican 2013). Responsible eating needs to be practiced from childhood through the lifecycle into aging.
The Elderly/Aged
Transition from adulthood to the elderly begins from age 60 upwards. It is accompanied by reduction in lean body mass, metabolic rates and physical activity. The elderly person requires less energy than the younger ones. Excess caloric intake is a risk factor to all age groups but more problematic for the elderly over the years because of cumulative effect. People need to be healthy as they age to enhance development. Aging is the accumulation of changes in an organism or object overtime. Aging in humans refers to a multi-dimensional process of physical and social changes. The physical changes that occur during aging among others include: loss of muscle tone, hair loss, greying of hair, change in gait, body posture, appearance of wrinkles and decline or slowing down of physical activity and productivity. This explains why retirement age is fixed from 60 years upwards and it varies from one organization to the other.

Aging and Healthy Retirement
Aging most times leads to decline in energy level with age. It implies reduction in intake of energy giving foods and increase in foods rich in minerals and vitamins such as fruits and vegetables. The need for protein may not change. Cooking methods that aids digestion should be utilized to ensure foods are well cooked to become soft and easily digestible. Oily and fried foods that do not digest easily should be avoided. Carbonated drinks, stimulating beverages, junk foods and unhealthy snacks from wheat flour should be avoided to enhance good health. In addition, the aged requires increased intake of fluids in form of clean water, plant milk, fresh fruit and vegetables juices. The aged are most times retired professionals who need to remain healthy and continue to contribute to the growth of the society.

Aging is a natural process with seeming decline in the functionality of the cells and organs of the body. Harris (2010) explained that the major cause of aging is the presence of free radicals in the body. Free radicals are found in the human body in the foods we eat and can be contacted through air population. It can also be generated in our body through, stress, grief, pain, insomnia, bad moods, tension and other external factors such as pesticides, exposure to ultra – violet radiation (Rob, 2011, Adiagwai,Ogunbuwale & Uko – Aviomoh ,2016). Free radicals rupture the cell membrane and may render it invaluable. When the cells of the body are destroyed, the functionality declines, D.N.A is damaged and aging easily sets. Foods that yield free radicals easily among others include: fried foods such as akara, plantain samosa, buns, egg roll, potatoes, yams, doughnuts, chin chin, others include pasta products (noodles) cake and other sugary foods, meat pie, margarine, butter, white bread, rice, gari, extruded products and junk foods. Free radicals in the body can attack the body cells and result in uncontrollable multiplication of cells leading to cancer, (Adaigwai, Ogunbuwale and Uko – Aviomoh 2016).

The Concept of Retirement
Retirement means to withdraw or stop working. The age at retirement varies ranging from 60 – 70 years. Some people embark on voluntary retirement (earlier than retirement age based on one’s decision) or compulsory retirement (forced to retire by the organization based on circumstances). This paper focused on normal retirement (60 – 70 years).

According to Obobokha and Uko – Aviomoh (2020) at the beginning of a career the employee is usually excited, full of energy, the financial status improves and he can afford to feed himself without depending on anybody. The years goes by, a lot of food has been eaten most times with weight gain and decline in energy, aging sets. The health status of the aging worker determines how healthy he is on retirement. Retirement is a transition to the next level of life. A retired person is expected to be healthy, active and useful to the society. This calls for proper management of aging, health and stress.

A retired person with responsible eating habit over the years (prior to retirement) retires strong, full of life and energy with healthy weight. The reverse is the case with a retired person who did not eat responsibly throughout the working career retiring with obesity related diseases such as coronary heart diseases, hypertension, diabetes or sometimes cancer with greater risk of premature death. However, all hopes are not lost. A change of eating through responsible eating can lead to rejuvenation of cells and recovery of the aging process thereby transiting to graceful aging.

The Concept of Rejuvenation
Rejuvenation means to make something young or youthful again and to give new vigor. Rejuvenation makes something old seems young again with new strength, energy endurance and greening It can also mean to bring renewed freshness and vitality. Aging is most times seen as an irreversible biological change that occurs in the living things over time.
Steps to Rejuvenation

1. **Eat nutritious foods** – it has been established that eating habits can rejuvenate the body. According to Kapadaya, (2014) food can harm or rejuvenate the body and also, pain and pleasure is invited into a person’s life through the food eaten, the situation food is eaten determines whether the food will harm or heal the body. Our mental state e.g whether we are angry, sad, tensed, while taking food will affect our body negatively. If we are happy and relaxed before swallowing food it will affect our body positively.

   When food is eaten prayerfully with thankfulness and gratefulness to the food provider, 100% rejuvenation is assured. The portion size of food one takes determines the persons health Kapadaya 2014, Ifam 2022) no matter how well – loaded with nutrients a food is, if these conditions do not exist during eating food, rejuvenation of body cells is difficult. Nutrient dense foods may not provide visible rejuvenation signs unless it is eaten in the correct proportion with gratefulness and relaxed mental state.

2. **Body detox** – the end product of digestion is waste materials loaded with toxins. It is important to plan and eat diets high in fibre to enhance cleansing of the digestive tract for a healthy gut. Sometimes it is necessary to take a detox diet to eliminate toxins from the body, improve heath and promote weight loss (Healthline 2020). Body detox means cleaning the body and getting rid of toxins in the blood, liver, kidneys, intestines, lungs, lymphatic system and the skin. Body detox enhances biological processes thereby promoting, digestion, absorption, utilization of food nutrients by cells for repair and rejuvenation without interference by toxins e.g. free radicals.

3. **Regular exercise**: regular exercise is important for healthy living into retirement. Weekly exercise for 130 – 150 minutes per week lowers inflammation, burns fat, increases oxygen intake and metabolic rate thereby defoxifying the body (Okafor & Uko – Aviomoh 2019, Healthline 2020).

4. **Adequate sleep**: healthy living requires 7 – 9 hours of sleep per night. Sleeping enhances rejuvenation by allowing the brain to reorganize and recharge itself while removing daily

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However, Kapadaya in 2014 debunked this position and demonstrated that eating habits can rejuvenation the body. Ifam (2022) also confirmed that certain foods when eaten can cause rejuvenation of the body especially during the new normal era.

According to Denoth – Lippuner and Jessberger, (2019), aging leads to changes in an organism at a cellular level. It can also occur in an organ or even the whole organism. It can take place through use of stem cell regeneration medicine (Brocks & Kumer,2005), enhanced DNA repair (Chen, Geng, Zhang, Qian, Wan, Jiang & Mao, 2022) or repograming of old cells into cells of different fate preserves for many aging signs (Denoth – Lippuner and Jessberger 2019). According to Brocks and Kumer (2005). Thompson (2014) and De – Loria-Camilla & Quilan (2021) reported the use of cosmetics surgery, hormonal replacement therapy and heterochronic parabiosis for rejuvenation.

Danner in 1992 presented a proliferation theory concerning the molecular basis of rejuvenation. The theory assumes that aging is due to the accumulation of multiple forms of molecular damage and that rejuvenation is due to repair. It emphasized the advantages of proliferation as a means of repair and proposed that cell proliferation is required for full rejuvenation. This points to the fact that the body needs a trigger for proliferation of cells to attain rejuvenation. There are other unsustainable claims that use of powders, sprays, gels and other substances which contain growth hormones can be used for rejuvenation. These various approaches to rejuvenation have been demonstrated to be short lived which informed the Mprize to set up a cash awarding competition to the research that developed the most successful prevention of on-set of rejuvenation. The price winner was Steven Spindler whose team used Caloric Restriction (CR) – the consumption of fewer calories while avoiding malnutrition as a robust method of decelerating aging and the development of age-related diseases. (Dhahbi, Kim, Mote, Bearer, Spindler, 2004). This research report pointed to reducing caloric, intake which is important to healthy living of retirees through responsible eating. Responsible eating at this stage of life requires increasing intake of fruits and vegetables which can provide phytochemicals and functional foods for proper rejuvenation. Rejuvenation through responsible eating requires other life style changes for visible and sustainable results.

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accumulation of waste products. Shorter duration of sleep does not allow the body adequate time to perform this detoxification process resulting in buildup of toxins in the body. Poor sleep is linked to long- and short-term health consequences such as body pains, fatigue, stress, anxiety, obesity, diabetes, high blood pressure and cardiovascular diseases. (Okpaleke and Uko – Aviomoh, 2019.) Some of the best foods to help us sleep include almonds, walnuts, kiwi, malted milk, turkey, chamomile tea, passion flower tea, fatty fish, tart cherry, tart cherry juice, Mediterranean diet (Suni & Vyas 2022, Elliot, 2020) pap(Akamu) fresh ginger juice, quaker oats, beans porridge and fresh mint leaves (Okpaleke and Uko – Avoimoh).

5. **Increase water intake:** Drink more water to remain hydrated everyday (2-2.5 litres daily). Adequate water intake also helps to remove toxins from the body, carries oxygen and nutrients to cells, maintain body temperature and lubricates the joints so it is very crucial for rejuvenation of cells.

6. **Reduce intake of junk and processed foods:** Junk foods and most processed foods are loaded with heavy calories and food additives. Retirement age is a period of reduced caloric intake with increased consumption of fresh fruits and vegetables for healthy living. Most food additives are known to cause adverse effects to health after long term consumption. Regular consumption of foods preserved with aspartame, nitrates or nitrites for example are known to result in tumors or cancers. High intake of sugary foods and processed foods are linked to obesity, cardiovascular diseases, diabetes and cancer.

7. **Decrease salt intake:** high salt intake can result in decreased kidney and liver functions resulting in poor urine production, bloating and poor elimination of waste. The toxin builds up from accumulated waste can retard rejuvenation process. Too much salt consumption results in high sodium in the body enhancing buildup of water in the body system which increases the blood pressure. Salt consumption should reduce as one ages.

**Foods for Body Rejuvenation**

Consuming foods rich in antioxidants helps reduce the damage caused by free radicals and promotes body rejuvenation. Most foods that attack free radicals in the body thereby causing repair and rejuvenation are classified as functional foods and phytochemicals. They are found in some fruits, vegetables, nuts, fatty fishes, pulses, legumes, and cereals. Most of these foods are coloured and the anti – oxidant they contain depends on their colours e.g fresh tomatoes (red colours) contain lycopene, blue/purple e.g (blue barriers) coloured fruits/vegies contain flavanoids, yellow foods (yellow corn) contain anthocyanins, orange coloured foods(e.g, carrots)contain carotene, green coloured foods (e.g amaranths) contain chlorophyll. The underlisted foods are among the important foods known to contain large amounts of anti – oxidants for cell repair and rejuvenation and should be eaten regularly while reducing high cabric food intake:

i. **Citrus fruits:** citrus fruits such as oranges, grape fruits, lemon, lime is very rich in vitamin c – an anti-oxidant. They are very beneficial to destroy free radicals, reducing risk of common cold, kidney stones, some cancers such as Oesophagus, stomach, breast and pancreatic cancer (Ifam 2020)

ii. **Vegetables:** vegetables are either leafy or non-leafy.

a. **Leafy vegetables:** they contain numerous nutrients to boost the immune system and for cell generation. They are sources of vitamins C,A,E & K, folic acid, magnesium, calcium, iron, natural flavours, chlorophyll and other phytochemicals. They are best eaten raw to conserve the nutrients (salads, fresh fruit or vegetable juices) or slightly warmed. Iron helps in boosting the energy level as well as regeneration of new red blood cells. Fluted pumtion leaves, amaantes, soko, ewedu, osisa leaves, curry leaves celery and parsley are among the common important leafy vegetables found in Nigeria.

b. **Non leafy vegetables:** are also rich in antioxidants for cell repair and rejuvenation. They contain the following phytochemicals – chlorophyll (okra, cucumber), flavonoids (sweet potatoes, raddish, onions, purple cabbage), anthocyanins (ginger,yellow corn), glucosnates (cabbage) carotene (Tumeric, carrots) lycopenes (tomatoes) allicin and allylic sulphides (garlic, onions) among others they also contain various amounts of vitamins especially vitamin C and A (anti-oxidants)

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iii. Other fruits: some other fruits also contain important anti-oxidants or phytochemicals for cell repair and rejuvenation these include among others: water melon, strawberries, pink guava, yellow paw paw, red apples (Lycopene) pineapple, beets (bromolin coumorins), blue barriers, black pear, dark grapes, apples (flavanoids) kiwi, avacados, pawpaw, mangoes (lutein) these fruits among others contain various quantities of vitamin C and A capable of oxidizing free radicals for cell repair and rejuvenation (Mican 2013, Nutrition guide 2020 healthy

iv. Nuts: nuts are rich in anti-oxidants, healthy proteins, carbohydrates and fats. Consuming different types of healthy nuts can help to regulate the cholesterol, triglyceride and oxidative stress caused by free readicals. Nuts can be eaten whole, made into fresh juice or butter. Healthy nuts needed for rejuvenation include: walnut, tigernut, almond, peanut and coconut. Nuts are rich in fibre and can help in the process of digestion and maintenance of gut health, reducing the risk of obesity and diabetes by lowering the level of low-density lipoprotein (LDL).

v. Healthy fatty fish: fatty fish is rich in Vitamin B12 and folic acid which plays a role in regeneration of red blood cells. Healthy fish (eg salmon, sardines, mackerel, tuna, oyster) are rich in omega 3 fatty acids which are important to for healthy heart, brain development and decreases inflammation in the body thereby reducing arthritis (Okafor & Uko – Avoimoh, 2019).

vi. Unrefined whole grain: whole grain should be eaten regularly for healthy living unto retirement unrefined whole grain was reported to be useful in the new normal diets because of its nutrient contents (Ifam 2020). They are loaded with nutrients such as B vitamins, zinc, iron, magnesium and magnese. The whole grains of importance are: oatmeal, whole grain rice and whole grain Quinoa (nutrition guide, 2020). Whole grain consumption can reduce the risk of chronic diseases such as diabetes, obesity, cardiovascular diseases and stroke among others. They are rich in fibre known for bowel cleaning and gut health.

vii. Beans and soya beans: beans and soya beans are good sources of plant protein for body cell repair of retirees. They are low in calories and can prevent fatty liver. Beans contains phytochemicals and antioxidants but a greater proportion is found in soya bean. Regular consumption of beans helps in body cell repair, improvement of gut and heart health, reduction of cancer risk and control of appetite due to the high fibre content. The antioxidants found in soya bean include: flavonoids, phenolic acid cur cumin, is flavones and carotenoids. The functional properties of soya bean include: prevention of onset of colon cancer, maintenance of skin texture through replacement of lost collagen which prevents wrinkling of the skin and loss of elasticity. It lowers cholesterol level in the body because of its high fibre, linoleic and linoleic fatty acid content. It also contains phytoestrogens which helps to raise the level of estrogen in the body thereby relieving the symptoms of menopause as well as refreshing the skin.

viii. Green tea and coffee: coffee contains antioxidants such as alkaloids flavonoids, phenolic acids, tennis and carotenoids among others. Coffee contributes to rejuvenation due to its anti-oxidant content but should be taken in moderation because of its caffeine content. Green tea has antioxidant prosperous because of its flavonoids, catechins and theoflams content. Green tea and coffee are capable of cell repair in the body and rejuvenation.

Responsible Eating and Rejuvenation for Healthy Retirement.

It is clear that retired people (after active service) are not different in their nutrient requirements from the aged. Aging has been found to cause cell damage to the body over time due to exposure to different factors including irresponsible eating. Cell damage is known to occur due to accumulation of free radicals in the body. Eating foods in the right proportion with the current nutrient density at any point in time is responsible eating. When the nutrients are carefully selected to include foods for cell repair, the new cells become new and stimulates the generation of more new cells on a sustainable basis. Ability of the body to replace worn out cells in large quantities restores youthfulness, freshness, strength and vitality. This is rejuvenation.
Rejuvenation, apart from use of foods rich in antioxidants and phytochemicals requires the food to be low in calories, eaten in a good mood with gratefulness. In addition, rejuvenation requires an enabling environment to manifest. This include among others, getting rid toxins in the body through body detox, regular exercise, adequate sleep, staying hydrated through regular drinking of water, reduction of junk food and processed food consumption and reduced salt intake.

A retiree who adopts responsible eating and rejuvenation meals with its attendant routines will remain strong, vibrant, energetic young, ever green and healthy enough to continue to contribute to the development of the society.

**Conclusion**
Retirement after active service goes with aging. Eating wrong foods with low nutrients density in large portion sizes over the working years predispose retirees to pre-mature aging through accumulation of free radicals in the body with corresponding health challenges. Eating foods rich in antioxidants and phytochemicals can destroy the free radicals, repair the cells as well as sustain cell generation leading to rejuvenation. Rejuvenation helps to restore youthfulness, energy, vitality, strength and endurance. Apart from eating antioxidant rich foods, the retiree needs to reduce caloric and salt intake, portion size, drink a lot of water, avoid eating junk and other processed foods, carry out regular body detox and exercise while having enough sleep to enjoy the full benefit of rejuvenation into a healthy youthful, evergreen and active productive life.

**Recommendations**
The following recommendations were made from this study:
1. Retirees should reduce their caloric intake by reducing the portion of daily food intake
2. Retirees should source for antioxidant rich foods and include them in their daily meals
3. Body detox should be carried out regularly to keep the organs healthy
4. They should engage in mild exercise e.g walking for 130-150 minutes per week for muscular tone, strength and proper functioning of the body
5. They should have 7-9 hours of sleep per night
6. Retirees should eat more fruits and vegetables with functional properties
7. Buy foods in season to cut down cost
8. They should plan their meals
9. Use right cooking methods to make their foods soft and easily digestible
10. Create enough time for eating for proper chewing and swallowing
11. Eat with joy and gratefulness
12. Avoid eating junk foods and processed foods
13. Avoid drinking carbonated drinks or energy drinks
14. Drink green tea and moderate amount of coffee to increase antioxidant uptake

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