Diabetic references of few Cameroonian traditional dishes

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Abstract

Defined by Diabetes Canada (Canada 2017), diabetes is a chronic disease, in which the body either cannot produce insulin or cannot properly use the insulin it produces. Diabetes leads to high blood sugar levels, which can damage organs, blood vessels and nerves. According to the World Health Organization (WHO), about 422 million people worldwide have diabetes and this number is likely to double in the next 20 years (WHO 2017). Two main types of diabetes are identified (Canada 2017) (WHO 2017). *(i)* Type-1 diabetes, which occurs when then immune system mistakenly attacks and kills the beta cells of the pancreas. Case in which, only very little or even no insulin is released into the body which results in a fast change of the sugar energy function and its rapid building up in the blood. This type of diabetes affects about 10% of the 422 million people indicated in (WHO 2017). Type-1 diabetes is treated with insulin but a regular meal planning is an important asset to the blood sugar regulation. *(ii)* Type-2 diabetes: In this type of diabetes, the body either is unable to correctly use the insulin released or does not produce enough insulin. This leads to the same result as in Type-1 diabetes. However, the treatment approach of Type-2 diabetes includes physical activities and meal planning and may also require insulin. Meal planning (food) is recommended for types-1 and -2 (Canada 2017) (WHO 2017) (Institutes 2017). Thus, lots of recipes have been proposed. Some examples are proposed in (Ontario 2017) (lillydiabetes 2017). Hence, it is clear that meal is an important contribution to prevention and treatment of diabetes.

Countries such as Cameroon, Nigeria, to mention only two, are naturally blessed with an environment full of natural essences including vegetables and many types of food. In multiple combinations, these vegetables and other forest product have been used in a regular combination to produce a delicious dish after it has been cooked. Hence, in Cameroon, we distinguish dishes such as *Ekomba*, *Ekwang*, *Tenue militaire*, and *koki*. These four dishes have been largely analyzed in (Ponka, et al. 2016) for their nutrient content and their potential dietary reference intakes.

In general, all the proposed meal plans for diabetes prevention and treatment (Ontario 2017) (lillydiabetes 2017) do not include traditional African dishes. This leads to a loose of appetite to certain African patients who are used to their African foods. This may result in a malnutrition or a non-efficient meal plan. A comparison of some African, especially Cameroonian traditional dishes to diabetes meal plan will lead to an efficient treatment of African people having diabetes, and help those who intent to prevent it, to continue enjoying their African foods during treatment and prevention processes.

A quick comparison between a selected Cameroonian meal and diabetic recommendations is proposed in Tables 1 and 2 below.

Table 1

	Carbohydrate (g/d)	Protein (g/kg/d)	Fat (% of total energy)	Fiber (g/d)
Men 19-49	130	0.80	20-35	38
Men > 49	130	0.80	20-35	30
Woman 19-49	130	0.80	20-35	25
Women > 49	130	0.80	20-35	21

Table 2

	Carbohydrate (g)	Protein (g)	Fat (g)	Fiber (g)
Ekomba	22.2	5.0	8.0	1.7
Ekwang	15.4	1.4	4.3	0.2
Tenue M.	14.4	2.1	5.3	0.8
Koki	15.2	5.4	5.9	0.9

Table 2 given for 100 g of edible portion of dishes (Ponka, et al. 2016). When compared to Table 1, it shows that a direct use of these dishes in Diabetic meal plan according to the requirements of the WHO will not be helpful to the patient, since a regular men meal maybe reach 500 to 1000 grams. Our work focusses on modifying the selected Cameroonian dishes from their constitution so that they fit in the the diabetic meal plan, meeting the WHO recommendations.

Recent publications

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Biography



Nadege Mbiada is a self-motivated researcher acting in the domain of African Traditional Dishes and Meal plan for Elder people. She is the founder “Afric Food”, culinary institution acting in African Traditional Meals. Her research interest is the transformation of African dishes for Diabetics. She is looking at the Diabetic references of African traditional Meals. .

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