

## *Oreochromis Niloticus* (Linnaeus, 1758) its Biomedical Benefits for Children

KS Shillewar\*

\*Department of Zoology & Fishery Science, Science College, Nanded, Maharashtra, India.

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### ABSTRACT

Nile Tilapia (*Oreochromis niloticus*) it is fresh water & estuarine species. By lipid test profile, Analytical method, Chromatography method, Enzyme method, it has pharmaceutical potential to prevent Polyunsaturated fatty acid, Vitamin B12, Vitamin D etc. We found in Nile Tilapia have biomedical and nutraceutical products, Nile tilapia highly recommended for supplementary food for children.

**Keywords:** Biochemical properties, Pharmaceutical potential, Tropical fresh water fish

### INTRODUCTION

Common name Nile Tilapia (*oreochromis niloticus*) identified by color, morphometric & meristic characters by Day volume. It is commonly called as “paplet” in Maharashtra, India. Native of Tilapia middle East & Africa, but at present fish is spread up 80 countries worldwide. Bronze to brownish-gray dorsally & laterally, white ventrally. It is tropical and estuarine species. Fish have more tolerance to live in poor water quality. It is hard & desirable Aquaculture species. Fish is herbivorous in habit. It is valuable food fish role of functional food, which provide health benefit beyond basic nutrition. It is good source of medicinal food because it contains high level of Omega -3 & Omega-6 fatty acid, EAA, Vitamin B12, Vitamin D which are most important for children.

### BIOCHEMICAL PROPERTIES OF NILE TILAPIA

#### Collection of Fishes

In the early morning with the help of fisher men Nile tilapia (*Oreochromis niloticus*) collected from Wadi Ponds, Shekhachi wadi ponds, Nanded Maharashtra, India. The fishes transferred to College Lab, pathology Institute for experiment, in Maharashtra, India. By Lipid Test Profile, Analytical method, chromatography method, enzyme method we found below properties.

Nile Tilapia fish useful source of proteins (21% to 22.5%) lipids, Vitamin Vitamin B12, DHA, EAA Omega-3 & Omega-6 fatty acid. Fish indicate that fish is useful for kids for supplementary food Human diet.

### HEALTH BENEFITS/NUTRITION

#### Arachidonic acid [AA]

Arachidonic acid supplementation of the diets of Kids & healthy adults & solve skin problems. Arachidonic acid recommended for supplementary food.

#### DHA- (omega-3 fatty acid)

Omega -3 fatty acid develop brain, to solve the sleep problems in children's, one of the most common neurodevelopmental disorders of childhood, proper nutrition, brain boosting supplements. In particular, docosahexaenoic acid (DHA) long chain omega-3 fatty acid, is important for brain and eye development. Additionally, DHA play a significant role in mental health throughout early childhood and even in to adulthood. DHA may also reduce the risk of heart and circulatory disease by decreasing the thickness of the blood and lowering blood levels of triglycerides.

#### Glycine

Glycine is an amino acid; this amino acid may also protect your liver from alcohol induced damage and improve sleep quality and heart health.

#### Nutrition

Nile Tilapia is high in Vitamin B12, which is helpful for kid's nervous system & produce red blood cells. It is also low in fat, carbohydrates and sodium making it a healthy addition to any meal.

**Corresponding author:** KS Shillewar, Department of Zoology & Fishery Science, Science College, Nanded, Maharashtra, India, Tel: 9552255288; E-mail: drkirans08@gmail.com

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### Health Benefits

Nile Tilapia have high percentage of Vitamins & Minerals like Vitamin B 12, Vitamin D which are useful for kids for body needs to function.

### Cardiovascular

In Nile Tilapia Thromboxane biosynthesis is present (Omega-3 fatty acid) Skin extract from fish.

Cardio toxic factor oil supplementation is widely regarded as an effective preventive measure against cardiovascular problems. AA [Arachidonic acid] present in Nile Tilapia reduces coronary heart disease.

### Skin Diseases

In Tropical and Sub-tropical area most of people suffering from skin diseases, like pimples, sclerosis etc. Nile Tilapia useful in these Circumstances and help patients as well support for the maintenance of healthy skin of the human beings.

Especially its action is due to the presence of docosahexaenoic [DHA] AA [Arachidonic acid] which are present in Nile Tilapia. AA metabolism altered skin diseases. From fish oil [EPA, DHA] lead modulate prostaglandin metabolism and decrease the Symptoms of such disorders.

### CONCLUSION

Nile Tilapia fish low in mercury high in protein and packed with essential nutrients for growing kids (Young once) Fish contains lots of vitamin, B12, especially protein, calcium, unsaturated fatty acid an impotent nutrient for brain development and healthy blood. Fish have selenium which support a healthy immune system and have vitamin D, Magnesium, Iodine, Zinc all are important for development of brain. The nutritional benefits of fish consumption in children has been reviewed. The present paper explores the nutritional value of fish as approach to nutrition in children and its benefits. Fish have high percentage of amino acid, (EAA) polyunsaturated fatty acid (PUFAs) which need to development of brain, Hence, while fish consumption is highly recommended for children nutrition.

### SELENIUM/CHOLINE

Selenium give boosting immune function, improving hair loss problem, to become a mussel strong, healthy thyroid. Choline gives to kids, B 12, develop brain & nerve system, healthy function of liver.

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