



## **Assessment of Nutritional and Physical Status of Middle-Aged Women Practicing Yoga**

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### **ABSTRACT:**

Middle-aged women face several unique health challenges and opportunities, including hormonal shifts, chronic conditions, and changes in metabolism. Practicing yoga has been shown to improve flexibility, strength, and mental well-being. As such, this study aimed to evaluate the physical and nutritional status of 30 women aged 30-50 who practice yoga. To gather data, a survey questionnaire was created that included demographic, anthropometric, clinical, dietary, and fitness assessments. Samples were collected from Amitesh Nagar, Indore. The data that was gathered underwent analysis, using SPSS and MS Excel (version 16). Two groups were studied based on their Yoga practice duration: Group A (15 women, practicing for more than 2 months) and Group B (15 women, practicing for less than 2 months). The results of the study showed that Group A had a better body mass index, cardiorespiratory endurance, flexibility, and muscular strength than Group B. On the other hand, Group B showed improvement in energy levels and muscle strength but failed to achieve their weight-related goals. The study also revealed that 73.3% of women noticed changes in their weight by practicing yoga daily. Additionally, Group A had slightly better dietary intake than Group B, but still, they could not meet their recommended daily allowance (RDA). In conclusion, the study found that practicing yoga for more than 2 months improves physical fitness in women, including BMI, endurance, flexibility, and strength. Short-term yoga improves energy and muscle strength but not weight-related benefits. Therefore, long-term yoga practice is especially beneficial for middle-aged women.

Keywords: Cardiorespiratory endurance, flexibility, muscular strength, Yoga.

### **1. Introduction:**

Middle age refers to the period between young adulthood and old age, usually in the 40s or 50s. It brings physical changes like hormonal shifts, slower metabolism, and potential decreases in muscle mass and bone density. It also brings psychological changes such as emotional reflections on life's purpose and increased stress. To navigate this period successfully, it's crucial to focus on maintaining physical activity and a balanced diet, managing stress, ensuring quality sleep, nurturing social connections, and planning financially for the future.

To make this stage of life easier, it's important to focus on staying active, eating well, managing stress, getting good sleep, keeping up with friends and family, and planning for the future financially.

As we get older, our bodies need different kinds of food to stay healthy. We need enough protein, calcium, and vitamin D to keep our muscles and bones strong. We measure how much of these nutrients we need using something called the RDA protocol, which tells us how much of each nutrient we need every day.

The goal of this study is to look at the health and fitness of middle-aged women who practice yoga.

Yoga is a great way to stay healthy both physically and mentally. It involves doing certain movements, breathing in special ways, and meditating. It can help with things like stiff joints and tight muscles. This study wants to see how yoga helps people who might have trouble moving their bodies easily because of stiffness or pain. We want to compare the health and fitness of women who do yoga regularly with those who don't.

### **2. Methods**

This research aimed to comprehensively assess the nutritional and physical status of women aged 30-50 who engage in yoga practice. To achieve this objective, a multifaceted approach was employed, beginning with the creation of a comprehensive questionnaire encompassing demographic profiles, anthropometric tests, clinical assessments, dietary evaluations, and fitness assessments, including cardiorespiratory, flexibility, and muscle endurance tests.

The study was conducted in Amitesh Nagar, Indore, with a sample size of 30 participants, divided equally between women practicing yoga for less than a month and those practicing for more than a month. Data analysis was meticulously carried out using a combination of Microsoft Excel and SPSS (Version 16). Microsoft Excel facilitated initial data organization and basic statistical analyses, while SPSS allowed for more advanced statistical techniques such as inferential statistics, correlations, and regression analyses.

Through this rigorous analytical process, the research aimed to uncover correlations between yoga practice, nutritional habits, physical fitness, and overall health outcomes among women in the specified age group. Ultimately, the findings of this study hold the potential to inform targeted interventions and promote holistic well-being among women engaged in yoga practice.

### 3. Results

Table 1 shows information about 30 middle-aged women who do yoga. Some have been doing it for less than a month, and some for more than a month. Out of these 30, 15 started yoga less than a month ago, and 15 have been doing it for over a month. This lets us compare how fitness and the benefits of yoga differ between these two groups.

**Table 1: How long you have been practicing yoga?**

Less than a month	15
More than a month	15

**Table 2: How often do you practice yoga per week?**

Once a week	6.7%
2-3 times a week	26.7%
4-5 times a week	40%
Everyday	26.7%

**Table 3: How long do you practice yoga in each section?**

Less than 30 minutes	56.7%
30- 60 minutes	43.3%
More than 60 minutes	0%

Table 4 indicates that out of 30 women, 90% have noticed a change in their physical health after practicing yoga.

**Table 4: Have you noticed any physical changes since you started practicing yoga?**

Yes	90%
No	10%

**Table 5: If yes, what kind of changes?**

Increased flexibility	51.9%
Improved strength	40.7%
Better posture	63%
More energy	77.8%

**Table 6: Have you noticed changes in your sleep patterns since starting yoga?**

Slightly improved	26.7%
Moderately improved	53.3%
Same as before	20%

**Table 7: Do you feel yoga has helped you achieve any specific weight-related goals?**

Yes	83.3%
No	16.7%

**Table 8: If yes, what specific weight-related goals have you achieved?**

Losing a specific amount of weight	15 (60%)
Gaining muscle mass	6 (24%)
Maintaining a healthy weight	15 (60%)

**Table 9: Cardiorespiratory Fitness test by Step up heart rate**

Good	14
Average	10
Poor	6

**Table 10: Flexibility test by joining hand on back**

Good	14
Average	13
Poor	3

**Table 11: Muscular endurance test by sit-up counts**

Good	5
Average	16
Poor	9

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#### 4. Discussion:

The current study looked at how yoga affects 30 women. Surprisingly, 24 of them said yoga helped them reach their weight-related goals. They also felt better in other ways, like being more flexible, stronger, and having better posture and more energy.

After practicing yoga, women experienced noticeable enhancements in their sleep quality. Specifically, 26.7% women reported a slight improvement, while 53.3% observed a moderate betterment. Only 20% reported no change in their sleep patterns.

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#### 5. Conclusion

This study strongly proves that doing yoga regularly for more than two months really boosts women's physical fitness. It helps with things like BMI, endurance, flexibility, and strength. Even though doing yoga for a short time can make you feel more energetic and stronger, it doesn't really help with losing weight. So, if you're a middle-aged woman looking to improve your overall health, sticking with yoga for the long haul is the way to go.

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#### References

- Bedekar, C., Dr, Hande, D.,(2017). Effect of yoga on health-related physical fitness. *International Journal of Multidisciplinary Research and Development*, (pp. 105-109), 4(3).
- Sm.Azizunisaa Begum, C. V. (2023). Impact of Yoga Practice on Well-Being among Yoga Practitioners. *Journal for Reattach Therapy and Developmental Diversities*, 6(1), 43–52.
- Anheyer, D., Koch, A. K., Thoms, M. S., Dobos, G., & Cramer, H. (2021). Yoga in women with abdominal obesity – Do lifestyle factors mediate the effect? Secondary analysis of a RCT. *Complementary Therapies in Medicine*, 60, 102741.
- Widjaja, W., Wongwattanapong, T., Laskin, J. J., & Ajjimaporn, A. (2021). Benefits of Thai Yoga on physical mobility and lower limb muscle strength in overweight/obese older women: A randomized controlled pilot trial. *Complementary Therapies in Clinical Practice*, 43, 101345.
- Denham-Jones, L., Gaskell, L., Spence, N., & Pigott, T. (2022). A systematic review of the effectiveness of yoga on pain, physical function, and quality of life in older adults with chronic musculoskeletal conditions. *Musculoskeletal Care*, 20(1), 47-73.