

## **Obesity an obstruction in Spiritual Well Being**

Kapil Budhawat<sup>1</sup>, Vaishali Khade- Budhawat<sup>2</sup>,

# B. Pharmacy (Bharati Vidyapeeth College of Pharmacy, Kolhapur), M.A. Yogashastra (Pursuing from KKSU, Ramtek, Nagpur), Yoga Wellness Instructor (Certified by Yoga Certification Board) M.A. Yogshastra (Kavikulaguru Kalidasa Sanskrit University, Ramtek), B. Pharmacy (Bharati Vidyapeeth College of Pharmacy, Kolhapur)

#### ABSTRACT

Spirituality, as a multifaceted journey encompassing physical, mental, and emotional wellbeing, is a fundamental principle in many spiritual traditions. This paper delves into the interconnectedness of spiritual development and holistic health, with a specific focus on the management of obesity. The three stages of dhyan, dharana, and samadhi represent the progressive levels of spiritual growth, each rooted in the purification of the body, mind, and emotions.

Ancient Indian texts such as the Bhagavad Gita, Patanjali's Yoga Sutras, and Hathayoga Pradipika emphasize the essential link between physical health and spiritual development. These texts offer insights into the appropriate use of the senses and mental faculties, central to yogic practices, as well as the role of yoga in pursuing self-understanding and breaking free from the cycle of attachment and aversion, which is relevant to food cravings and impulsive behaviors.

The prevalence of obesity in the modern world is a pressing concern, with over 1.9 billion adults overweight and 650 million classified as obese in 2016. This global issue underscores the importance of addressing physical health in the context of spirituality and well-being.

Specific references from classical texts such as Charaka Samhita and Hathayoga Pradipika are provided, highlighting the relevance of Ayurved and Yoga disciplines. These texts emphasize the significance of psychological reconditioning, stress management, metabolic normalization, relaxation techniques, and contemplative practices in addressing lifestyle disorders.

The paper argues that the practice of authentic yog asanas and pranayama is crucial for achieving positive results in managing lifestyle disorders such as obesity. Diluted or inconsistent practices may not yield the desired outcomes, emphasizing the need for a consistent and dedicated approach to holistic health.

In summary, this paper underscores the integration of spirituality, physical health, and mental and emotional well-being as interconnected facets of a fulfilling life. It draws upon ancient Indian wisdom and classical texts to emphasize the importance of yoga as a path toward spiritual development and holistic health. The management of lifestyle disorders, such as obesity, requires not only authentic yogic practices but also a sustained commitment to a balanced lifestyle and nutrition. By embracing these principles, individuals can embark on a transformative journey toward spiritual growth and comprehensive well-being.

Keywords: Yog, Yogic diet, Lifestyle disease, Techniques of Yog, Ashtanga Yog, Yog <u>Aasan</u>, Pranayam, Dhyan. Obesity, Spirituality, Weight Loss



### **INTRODUCTION**

Spirituality encompasses a broad and multifaceted journey that includes three fundamental stages: *dhyan, dharana*, and *samadhi*. These terms represent different levels of spiritual development and personal growth for an individual. At its core, spirituality revolves around the foundational concept of purifying one's being, which must occur at the physical, mental, and emotional levels to facilitate and advance spiritual growth.

The idea that purification of the body must occur at physical, mental, and emotional levels to foster spiritual growth is a fundamental principle in many spiritual traditions. By purifying the body, we prepare ourselves to progress through the stages of meditation, concentration, and ultimately, unity with the divine or the higher self.

This paper is work done on 51 recent cases of Obesity out of 500 plus ongoing cases.

Many Ancient Indian texts like Charak Samhita, Bhagvad Gita, Patanjali Yog Sutras and Hathayoga Pradipika emphasising on wellbeing in terms of health for spiritual development.

In 2016, more than 1.9 billion adults, 18 years and older, were overweight. Of these >650 million were obese. Thirty-nine percent of adults aged 18 years and over were overweight in 2016, and 13% were obese. Most of the world's population lives in countries where overweight and obesity are cause of death than being underweight.

Particular portions of the classical text *Charak Samhita & Hathayog Pradipka* relevant to the discipline of Ayurved & Yog include

- 1. appropriate/inappropriate use of the senses and mental faculties, which are the essence of yogic practice and central to psychological and experiential aspects of disordered eating and sedentary lifestyle
- 2. the central role of yogic practice in pursuing self-understanding and

escaping the cycle of attachment/aversion, relevant to food cravings as well as addressing impulsive behavior and stagnation (*rajas/tamas*)

Ref. i. Charak Samhita, Sutrasthanam, Ashtauninditiya Adhyaya

ii. Hathayoga Pradipika, Ch 1, Slok no.6 & Ch 2 slok no. 4

Thus, this application of True Yog, Yogic Diet, Shuddhikriya has been applied in a manner consistent with traditional practice as described in *Ancient Indian Texts* and utilize asana to promote metabolic activity and affect *doshic* expression.

#### सत्त्वशणद्धसौभनस्यकाग्र्यणिमजमात्मदशनमोग्मत्वाणन

국 II PYS, Ch. 2, Sutra 41 II There also arises purification of the Sattva, cheerfulness of the mind, concentration, conquest of the organs, and fitness for the realisation of the Self.

Yog is method or techniques to separate mental fluctuations and bring awareness about three states of Chitta i.e. Consciousness, Sub-consciousness and Unconsciousness. The Ashtanga Yog is a very advanced practice of Yog. Which focuses on Physical, Mental, Emotional and Spiritual wellbeing.

Sage Patanjali who introduces Raja Yog a path towards spirituality is consists of eight limbs or say eight steps. One need to climb each step awaken this awareness towards spirituality.

Authentic practice of Yog Asanas and Pranayam is much needed. Diluted practice may not give results as reported in major findings.

However people need to maintain new lifestyle, regular yog practice and good balanced nutrition forever.



The basic yogic principles useful in the management of lifestyle disorders are discussed including psychological reconditioning and development of appropriate attitudes; stress management, normalization metabolism; of and relaxation, visualization, and contemplative practices with authentic yog.

We have recorded Progress cards & experiences of each individual with 15 days frequency for the period of 03 month to 01 Year for following details

- 1. Change in Weight, Fat Percentage and BMI every 15 days.
- 2. Personal Observations by individuals recorded.

Major Findings of the study are as Follows:

- 1. Weight loss made Possible without any side effects.
- 2. Management of Disease become easy. Losing weight means improved body efficiency & thus changes in disease states as well.
- 3. Some People have reversed Disease as an effect of weight loss & Medication Doses Reduced in some.
- 4. Many of them noticed reduced stress level, improved concentration, less body pain and mindfulness.

100% Compliance is Needed to get best results.

Here we are going to discuss 51 case studies of fat loss.

Fat is the protective component of our body which has been deposited under the skin or on vital organs. If calorie intake is more than the requirement of the body then it's stored in the form of fat. According to Charak Samhita – written thousands of years ago –

## मेदस्यतीव संवृद्धे सहसैवानिलादयः| विकारान्

दारुणान् कृत्वा नाशयन्त्याशु जीवितम्||८||

मेदोमांसातिवृद्धत्वाच्चलस्फिगुदरस्तनः| अयथोपचयोत्साहो नरोऽतिस्थूल उच्यते||९||

As the body gains excessive fat, vitiated dosha suddenly cause severe diseases resulting in rapid deterioration of life. The person is considered too obese when there is an excessive increase in fat and muscle tissue in the regions of buttocks, abdomen, and breasts, which become pendulous and suffer from deficient metabolism and energy.

Excess fat is a precursor to the health problems like Obesity, Hypertension, Cardiac Diseases, PCOD/ PCOS, Thyroid related issues etc. So controlling fat gain in the body is the main objective behind the holistic Yog practice.

In our findings we worked on the cases through:

- 1. Asan
- 2. Pranayam
- 3. Diet
- 1. Asan:

हठस्य परथमाङ्गत्वादासनं पूर्वमुछ्यते | कुर्यात्तदासनं सथैर्यमारोग्यं छाङ्ग लाघवम-|| Hathayoga Ch 1. Slok 19||

Asan is the process of getting into a specific position, & maintaining that position, which opens the energy channels and psychic centres.

- 1. Practice of asan develops steadiness, increases the flow of Prana (vital energy force) removes toxins from the body.
- 2. Asans stretch muscles and skin, breaking bonds among fat molecules underneath. This released fat becomes energy for the body during asan.
- 3. Regular yoga halts fat accumulation by preventing reformation.
- 4. Fat burns above body temperature. Longer asana holds heat engaged muscle fibres more than other body parts.



- 5. The flow of blood circulation in this area increases which helps to move the dissolved fat from that part towards metabolism.
- 6. Asans enhance muscle quality, reinforcing skin-muscle bonds.
- 7. Adjusted skin prevents further fat accumulation with a maintained lifestyle.
- 8. Extended asana duration fosters agility and longevity.
- 9. Effective asana performance builds multiple muscle fibres, boosting stamina.
- 2. Pranayam:

It is a technique of breath extension and breath retention which increases the pranic capacity.

Deep Breathing - We all are aware that breath consists of 4 parts . they are breathing in slow and deep (puraka), holding your breath as long as you can (antar kumbhaka), breathing out slowly and completely through the mouth in early stages and once proficient can breathe out through the nose (rechaka), & holding your breathing again when lungs are empty (bahir kumbhaka). This is a very simple technique, but starts to grow in therapeutic effects as soon as the duration a single breath starts to cross 60 seconds. As you get to closer to 2 minutes/breath you start developing very good health parameters and your immunity is quite high. When you cross this threshold, then you find your health taking you to realms beyond normal in terms of lots of qualities. We will restrict ourselves to general health, improved immunity and preventing illness as the focus of this article.

## 3. Diet :

देहवृत्तौ यथाऽऽहारस्तथा स्वप्नः सुखो मतः| स्वप्नाहारसमुत्थे च स्थौल्यकार्श्ये विशेषतः ||Carak Samhita, Sutrasthanam, 51||

As wholesome diet is essential for the maintenance of the body, sleep is essential

for happiness. Therefore, obesity and leanness are specifically caused by improper sleep and diet.

Diet is the important factor when we talk about fat loss. The Diet i.e. Mitaahara is composed of balanced nutrition, timely eating of food, chewing of food, hydration etc. In our research findings we observed that most people gained fat due to following reason:

- 1. Eating junk/ fast food very often
- 2. Stressful/ Emotional Eating
- 3. Munching very often
- 4. Addicted to sugar, salt and cheese rich food
- 5. High amount of bakery and dairy products
- 6. High calorie intake compared with physical activities
- 7. Poor understanding about thirst and hunger
- 8. Not chewing food properly
- 9. Not eating timely
- 10. Eating leftover/stale food

Ancient Indian Texts like Sushrut Samhita, Charak Samhita, Ashtanga Hriday, Hatha Yoga Pradipika etc. are emphasizing on Mitaahara i.e. right diet. Most of the food are responsible for the problems in our body. They are responsible for maintaining the balance of the Tridoshas. Following are our findings about prescribed diet.

- We all aware that today junk food and munching is the biggest problem. This occurs when the stomach doesn't fill its volume (ex: chocolates or sweets), but gets calories which may not be healthy.
- 2. So we programmed people's diet such as their volume of stomach will be filled with nutritious food - up to 80% and they will get required slow release calories along with other necessary nutrients.



- 3. The major role here is played by Trushna Dhanyalu also known as millets which are rich in fibres and nutrition.
- 4. People feel content with their stomach feeling full most of the time so they don't get the desire to munch.
- 5. The major work has been educating people about proper way of chewing as mastication of Saliva for primary digestion is very necessary & essential.
- 6. We planned people's diet in solar cycle as heavy to light meal from morning to evening. This will help metabolism which works in accordance with solar cycle. As sun rises appetite is high and as sun sets then appetite is weak.
- 7. Removal of Direct or simple Sugar from the diet helps people to utilise the body's ability to extract glucose from carbohydrates and foods.
- 8. Their body fat as energy source is utilised better which keep them active and fresh.
- 9. Most of the body's energy is spent on process of digestion. So we recommended one day fruit fasting or water fasting. This eases the load on the gut and provides cleansing effect for improved efficiency
- 10. Water drinking is the major issue among the female due to Multitasking attitude. But education about the correct quantity of water for removal of excreta/toxins from the body. This helps them manage their daily requirement of water better.
- 11. Sleep is most important factor in digestion of the food. So regulation of sleep, timely sleep is most required for good digestion.
- 12. Inclusion of fruits and dry-fruits early morning fulfilled the requirement of

essential mineral and vitamins. The absorption rate is very high in the early time of the day.

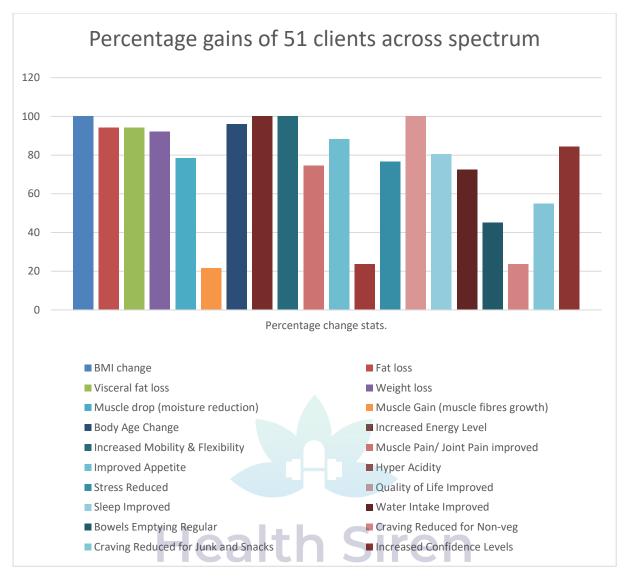
- 13. Most of the food are Sattvik or Rajasik in nature.
- 14. There is complete exclusion of wheat, paddy rice, dairy and bakery products from the diet.
- 15. Cow ghee is an exception
- 16. Pure vegetarian meal is given in the diet. No high protein sources are prescribed. To digest high amount of protein, the body requires maximum time for metabolism.
- 17. No protein shakes, No protein powder, No fat loss pills or any other medication given to fast track the fat loss journey.
- 18. Completely natural foods with benefits towards fat loss is achieved successfully.

The data represented in APPENDIX 1 & 2 is a small sample of 51 patients, out of few hundreds of patients from year 2020 to 2023 who consulted and attended Health Siren. The above people are active in Yog and Diet with us. Female patients are represented with letter F whereas Male patients are represented with letter M.

The age group of Female & Male is ranging from 17 years of age till 55 years of age. The ranges for Total weight loss, Total Body Fat Loss, Visceral Fat Loss, Skeletal Muscle Loss, BMI Change and Body Age Change are ranging from 0% to 70%.

The time taken for weight loss is between minimum 90 days to 365 days. The chart given below is representation of the number people against the changes in their mentioned parameters.





The percentage of muscle loss among male and female is maximum 10%. Most of the time – muscle weight loss is neglected during weight loss journey. But we tried to maintain maximum muscle. Visceral Fat is leading cause behind most of the lifestyle diseases/ disorders. In our study we noticed that people lost good quantity of visceral fat ranging from 5% to 70% of the total weight loss. The body age shown decrease as there is fat loss among the patients. This helps to understand that as fat reduces from the body, the functioning of the vital organs also improved, which shows that body works efficiently and increased immunity noticed among the people.

Conclusion:

- 1. This study, part of a 500+ patient cohort, clearly highlights the positive impact of traditional Yog, Pranayama, Diet, and Lifestyle changes on overall health.
- 2. Adhering to the prescribed regimen results in successful weight loss, while poor compliance leads to setbacks or reversals.
- 3. Inconsistent compliance yields fluctuating results, emphasizing the importance of sustained adherence for optimal outcomes.



4. This prospective research affirms the reproducibility and replicability of fat loss results through correct prescription and full implementation of True Yog, Pranayama, Diet & Lifestyle changes.

Yog holds great potential in preventing and managing lifestyle disorders, contributing significantly to improving the health of the masses. It may even play a role in disease prevention and potential cure if initiated early.

Yog, as a path to spiritual growth, has been demonstrated through baby steps in our obesity study. These steps showcase the successful application of Ashtang yog in the modern era, leading to positive lifestyle changes and increased joy.

Positive trends in studies on yog and its lifestyle components bode well for the future of integrative health care. The holistic benefits of yog, including lifestyle elements and the harmonizing effects of pranayama, contribute to physical, mental, emotional, and spiritual balance.

Yog is generally safe, simple to learn, and beneficial for individuals of all ages and health conditions. Our ongoing work aims to apply these principles in preventive health to address the obesity epidemic.

In conclusion, spirituality operates at different levels, and understanding and applying these stages can lead to personal growth. Our work with obesity underscores the substantial benefits achievable through these interventions.

**Health Siren** 



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## APPENDIX

1. Table of Percentage Changes seen among the patients

	Numbers	Percentage	Percentage chang	ae/
Cases T 51	change		relief	
BMI change	51	100		
Fat loss	48	94.12		
Visceral fat loss	48	94.12		
Weight loss	47	92.16		
Muscle drop (moisture reduction)	40	78.43		
Muscle Gain (muscle fibres growth)	11	21.57		
Body Age Change	49	96.08		
			25- 50%	12
Increased Energy Level	51	100	50 – 75%	20
			75-95%	19
			25- 50%	17
Increased Mobility & Flexibility	51	100	50 – 75%	25
· · ·			75-95%	9
			25- 50%	8
Muscle Pain/ Joint Pain improved	38	74.51		22
			75-95%	8
			25- 50%	12
Improved Appetite	45	88.24		28
		•••=	75-95%	11
			25- 50%	3
Hyper Acidity	12	23.53		7
		20100	75-95%	2
			25- 50%	18
Stress Reduced	39	76.47	50 - 75%	16
11001			75-95%	5
			25- 50%	18
Quality of Life Improved	51	100	50 – 75%	22
	• • •		75-95%	11
			25- 50%	8
Sleep Improved	41	80.39	50 - 75%	28
			75-95%	5
			25- 50%	14
Water Intake Improved	37	72.55	50 - 75%	13
			75-95%	10
			25- 50%	13
Bowels Emptying Regular	23	45.1	50 - 75%	8
			75-95%	2
			25- 50%	7
Craving Reduced for Non-veg	12	23.53	50 – 75%	. 4
		10.00	75-95%	1
			25- 50%	5
Craving Reduced for Junk and Snacks	28	54.9		11
	20	0-1.7	75-95%	12
Increased Confidence Levels	43	84.31	25- 50%	16
	-10	07.01	20 00/0	10



	50 – 75%	18
	75- 95%	9

2. This Table represents the data used for above research paper.

Patient Code	Column1	Date	Total Body weight in kgs	Total Fat %	Visceral Fat %	Skeletal Muscle in kgs	BMI	Rate Of Metaboli sm	Body Age in years	Actual Age in Years
		25-Dec-								
F1	Start	21	80.1	38.6	11	49.18	29.6	1315	59	36
	End	25-Apr-22	73.2	36.4	8.5	46.55	27.1	1244	54	36
	Total	121	6.9	2.2	2.5	2.63	2.5	71	5	0
	% Change		9.43%	6.04%	29.41%	-5.35%	9.23%	5.71%	9.26%	0.00%
F2	<u> </u>									
	Start	12-Feb- 22	70.5	36.6	9.5	44.69	27.5	1401	57	42
	End	23-Apr-22	65.1	34.9	7.5	42.38	25.4	1328	53	42
	Total Difference	70	5.4	1.7	2	2.31	2.1	73	4	0
	% Change		7.00%	4.87%	26.67%	-5.17%	8.27%	5.50%	7.55%	0.00%
F3										
	Otent	05-Sep- 20	79.1	39.4	10	47.9	29.2	1515	54	97
	Start	20 21-Aug-	79.1	39.4	10	47.9	29.2	1515	54	37
	End	21 Aug	65.2	33.9	5.5	43.09	24.1	1336	43	38
	Total Difference	350	13.9	5.5	4.5	4.81	5.1	179	11	-1
	% Change		21.32%	16.22%	81.82%	-10.04%	21.16%	13.40%	25.58 %	-2.50%
F4										
	Start	22-Oct-21	77.8	39	12	47.45	31	1498	58	44
	End	25-Mar- 22	69.5	34.8	8.5	45.31	27.7	1397	52	44
	Total Difference	154	8.3	4.2	3.5	-2.14	3.3	101	6	
	% Change		10.80%	12.07%	41.18%	-4.51%	11.91%	7.23%	11.54 %	
F5		15 D.								
	Start	15-Dec- 21	63	34.8	6	41.7	25.1	1297	42	27
	Start	24-Mar-	03	54.8	0	41.7	25.1	1297	42	27
	End	21 10101	58.4	33	4.5	39.12	23.2	1235	38	28



	Total Difference	99	4.6	1.8	1.5	-2.58	1.9	62	4	-1
	%								10.53 %	
F6	Change		6.30%	5.45%	33.33%	-6.19%	8.19%	5.02%	70	-3.70%
		15-Dec-								
	Start	21	62.1	37.7	7	38.68	25.2	1268	49	33
	Otart	25-Feb-								
	End	22	62.2	36.3	7	39.62	25.4	1280	50	33
	Total Difference	72	-0.1	1.4	0	-0.94	-0.2	-12	-1	
	% Change		-0.01%	3.86%	0.00%	2.43%	-0.79%	-0.94%	-2.00%	
F7										
	Start	26-Sep- 20	95.5	43.9	21.5	53.57	37.3	1275	68	38
	End	27-Jun-21	69.6	33.9	8	46	27.2	1405	52	38
	Total Difference	274	25.9	10	13.5	7.57	10.1	-130	16	
	%								30.77	
	Change		26.00%	29.50%	168.75%	-14.13%	37.13%	-9.25%	%	
F8										
	Start	13-Jun-21	74.6	40.5	15	44.38	32.7	1438	62	46
	End	02-Oct-21	72.8	40.2	14.5	43.53	32	1414	61	46
	Total Difference	111	1.8	0.3	0.5	-0.85	0.7	24	1	
	% Change		2.40%	0.75%	3.45%	-1.92%	2.19%	1.70%	1.64%	
F9										
	Start	27-Sep- 21	68.3	33.3	th <sub>9</sub>	44.22	27.4	1356	51	39
		05-Feb-								
	End	22	65.1	33.9	8	43.3	26.9	1333	51	39
	Total Difference	131	3.2	-0.6	1	0.92	0.5	23	0	
	%		4 000/	4 770/	40 500/	2.000/	4.000/	4 700/	0.000/	
F10	Change		4.20%	-1.77%	12.50%	-2.08%	1.86%	1.73%	0.00%	
		27-Sep-								
	Start	27 369	60.9	29.1	5.5	42.81	24.7	1290	41	29
	End	09-Jan-22	58.7	31.1	5	41.61	23.8	1247	40	29
	Total Difference	104	2.2	-2	0.5	1.2	0.9	43	1	25
	% Change		3.60%	-6.43%	10.00%	-2.80%	3.78%	3.45%	2.50%	
F11										
	Start	16-Oct-21	57.9	32.1	6	39.31	25.7	1229	36	23
	End	04-Oct-23	53.9	30.1	5	37.67	24	1175	34	25
	Total Difference	718	4	2	1	1.64	1.7	54	2	-2
	% Change		5.30%	6.64%	20.00%	-4.17%	7.08%	4.60%	5.88%	0.00%



F12										
		27-Sep-								
	Start	21	55.4	30.6	5.5	38.44	24.5	1196	37	31
		24-Nov-			_					
	End	21	53.6	28.6	5	38.27	23.7	1176	35	31
	Total Difference	58	1.8	2	0.5	0.17	0.8	20	2	0
	%									
	Change		3.20%	6.99%	10.00%	-0.44%	3.38%	1.70%	5.71%	0.00%
F13										
115		07-Dec-								
	Start	21	82.3	43.7	15.5	46.33	32.8	1533	62	37
	End	20-Jun-21	71	41.1	10	41.81	28.2	1384	55	37
	Total									
	Difference %	170	11.3	2.6	5.5	4.52	4.6	149	7	
	% Change		13.70%	6.33%	55.00%	-9.76%	16.31%	10.77%	12.73 %	
F14	Ŭ									
		24-Sep-								
	Start	21	64.4	33.1	6	42.88	25	1322	42	26
	End	13-Nov- 21	60.5	31.1	5	40.47	23.6	1276	38	26
	Total	21	00.5	51.1	J	40.47	23.0	1270	50	20
	Difference	50	3.9	2	1	2.41	1.4	46	4	
	% Objective		0.000/	0.400/	00.00%	E 000/	F 000/	0.040/	10.53	
	Change		6.00%	6.43%	20.00%	-5.62%	5.93%	3.61%	%	
F15										
	Start	09-Jun-21	61.2	32.8	4.5	41.12	22.8	1279	41	35
	End	02-Oct-21	55.6	29.6	3	39.14	20.7	1207	35	35
	Total									
	Difference	115	5.6	3.2	1.5	1.98	2.1	72	6	0
	% Change		9.00%	10.81%	50.00%	-4.82%	10.14%	5.97%	17.14 %	0.00%
F16	5									
		24-Nov-	_							
	Start	20 25 Son	61.2	36.9	6.5	38.61	24.4	1259	47	36
	End	25-Sep- 21	53.9	32.3	4	36.49	21.5	1167	39	36
	Total		55.5	52.5	+	50.43	21.J	1107		
	Difference	305	7.3	4.6	2.5	2.12	2.9	92	8	
	% Changa		9.7	14 0 40/	60 E00/	E 400/	10 100/	7 000/	20.51	
	Change		9.7	14.24%	62.50%	-5.49%	13.49%	7.88%	%	
F17										
	Start	26-Apr-21	79.1	36.1	10.5	50.54	29.8	1539	52	29
		06-Aug-								
	End	21	72.7	34.7	8	47.47	27.4	1446	48	29
	Total Difference	102	6.4	1.4	2.5	3.07	2.4	93	4	
	%	102	0.4	1.4	2.0	3.07	2.4	93	4	
	Change		8.00%	4.03%	31.25%	-6.07%	8.76%	6.43%	8.33%	



F18										
	Start	01-Oct-19	67.5	35	7.5	43.87	26.9	1356	48	32
		10-Feb-								
	End	20	58.2	33	5	40	23.3	1231	38.9	32
	Total									
	Difference %	132	9.3	2	2.5	3.87	3.6	125	9.1 23.39	
	% Change		13.60%	6.06%	50.00%	-8.82%	15.45%	10.15%	23.39 %	
F19										
	Start	16-Jan-21	66.3	35.9	6.5	42.49	25.9	1341	47	33
		27-Mar-								
	End	21	60.3	34.4	5	39.55	23.6	1258	42	33
	Total Difference	70	6	1.5	1.5	2.94	2.3	83	5	
	% Change		9.95%	4.36%	30.00%	-6.92%	9.75%	6.60%	11.90 %	
F20										
	Start	16-Apr-22	55.2	31.2	3.5	37.97	21.6	1194	34	27
		07-May-								
	End	22	52.4	29.8	2.5	36.78	20.5	1156	30	27
	Total Difference	21	2.8	1.4	1	1.19	1.1	38	4	
	% Change		5.34%	4.70%	40.00%	-3.13%	5.37%	3.29%	13.33 %	
F21										
	Start	30-Nov- 20	59.7	32.5	5	40.29	23.8	1257	38	27
	End	03-Jun-22	52.4	28.8	3	37.3	20.9	1159	30	27
	Total Difference	550	7.3	3.7	2	2.99	2.9	98	8	
	% Change		13.93%	12.85%	66.67%	-7.42%	13.88%	8.46%	26.67 %	
F22	Ŭ									
	Start	01-Feb- 22	61							28
	End	26-Mar- 22	54.4							28
	Total Difference	53	6.6							0
	% Change		12.13%							0.00%
F23		40.14								
	Start	16-Mar- 23	65.4	35.3	6.5	42.31	25.5	1331	44	30
	End	23 12-Jul-23	59.5	32.5	5	38.49	23.2	1254	39	30
	Total		0010	02.0	3	00110	2012	01		
	Difference	118	5.9	2.8	1.5	-5.9	2.3			0
	% Change		9.92%	8.62%	30.00%	-9.03%	9.91%	6.14%	12.82 %	0.00%
F24										



		12-Nov-								
	Start	19	92.6	40	14	55.2	32.8	1704	60	36
	End	02-Mar- 20	78.7	35.4	8.5	50.84	28.1	1538	48	36
	Total Difference	111	13.9	4.6	5.5	4.36	4.7			0
	%								25.00	
	Change		17.66%	12.99%	64.71%	-7.90%	16.73%	10.79%	%	0.00%
F25		03-Sep-								
	Start	21	69.8	39.3	10	42.36	28.9	1375	49	36
	End	30-Oct-21	66.3	38.1	8.5	41.03	27.4	1330	46	36
	Total Difference	57	3.5	1.2	1.5	1.33	1.5			0
	% Change		5.28%	3.15%	17.65%	3.00%	5.47%	3.38%	6.52%	0.00%
F26	Ŭ,									
	Stort	24-Sep-	00	00.0		40.44	00.7	4050	07	
	Start End	20 31-Jul-21	60 58.2	32.6 32.8	7 6	40.44 39.11	26.7 25.2	1259 1231	37 36	36 36
	Total	51-3ul-21	30.2	32.0	0	39.11	20.2	1231		50
	Difference	310	1.8	-0.2	1	1.33	1.5			0
	% Change		3.09%	-0.61%	16.67%	-3.29%	5.95%	2.27%	2.78%	0.00%
	enange		0.0070			0.2070	0.0070			
F27										
	Start	28-Nov- 20	60.1	34.8	4.5	39.18	22.8	1254	39	36
	Otart	27-Mar-	00.1	04.0	7.0	00.10	22.0	1204	00	
	End	21	58.8	32.4	4	39.74	22.3	1245	37	36
	Total Difference	119	1.3	2.4	0.5	-0.56	0.5			0
	% Change		2.21%	7.41%	12.50%	1.43%	e <sub>2.24%</sub>	0.72%	5.41%	0.00%
	Change		2.2170	7.4170	12.0070	1.4070	2.2470	0.1270	0.4170	0.0070
F28										
	Start	11-Sep- 23	58.3	28.4	4.5	41.78	23.8	1254	33	36
	End	17-Oct-23	56.9	27.3	4	41.36	23.2	1237	31	36
	Total Difference	36	1.4	1.1	0.5	0.42	0.6			0
	% Change		0.469/	4.029/	10 500/	1 0 1 0/	2 500/	1.070/	C 4E0/	0.009/
F29	Change		2.46%	4.03%	12.50%	-1.01%	2.59%	1.37%	6.45%	0.00%
	Start	13-Jan-23	70.2	39.4	11	42.54	29.8	1379	52	36
	End	15-Apr-23	65.5	36.8	9	41.39	27.8	1323	48	36
	Total Difference	92	4.7	2.6	2	1.15	2			0
	% Change		7.18%	7.07%	22.22%	-2.70%	7.19%	4.23%	8 330/	0.00%
F30	Change		1.10%	1.01%	۲۲.۲۲%	-2.70%	7.19%	4.23%	8.33%	0.00%
	Start	21-Nov- 22	61.6	30.8	3	42.62	21.3	1296	39	36
	End	21-Jan-23	59.9	28.4	2.5	42.88	20.7	1281	37	36
	Total Difference	61	1.7	2.4	0.5	-0.26	0.6			0



	%									
	Change		2.84%	8.45%	20.00%	0.61%	2.90%	1.17%	5.41%	0.00%
F31										
	Start	14-Jan-23	64.2	32.3	6	43.46	25.6	1328	40	36
	End	04-Mar- 23	63.9	31.5	6	43.77	25	1320	38	36
	Total	23	03.9	31.5	0	43.77	25	1520	30	30
	Difference	49	0.3	0.8	0	-0.31	0.6			0
	%	10	0.0	0.0		0.01	0.0			•
	Change		0.47%	2.54%	0.00%	0.71%	2.40%	0.61%	5.26%	0.00%
F32										
	Start	14-Jan-23	64.2	32.3	6	43.46	25.6	1328	40	36
	End	04-Mar- 23	63.9	31.5	6	43.77	25	1320	38	36
	Total	20	00.9	51.5	0	40.11	25	1520		50
	Difference	49	0.3	0.8	0	-0.31	0.6			0
	%									
	Change		0.47%	2.54%	0.00%	0.71%	2.40%	0.61%	5.26%	0.00%
F33										
	Start	30-Nov- 22	87.8	40.4	12.5	52.32	32.2	1639	51	23
	Sidil	22 18-Feb-	07.0	40.4	12.5	52.32	32.2	1039	JI	23
	End	23	80	37.6	9	51.1	28	1478	45	23
	Total									
	Difference	80	7.8	2.8	3.5	1.22	4.2			0
	% Change		9.75%	7.45%	38.89%	-2.33%	15.00%	10.89%	13.33 %	0.00%
504	Change		9.75%	7.45%	30.09%	-2.33%	15.00%	10.69%	70	0.00%
F34		24-Aug-								
	Start	24 Aug 22	68.7	39	9.5	41.9	28	1360	51	32
		04-Feb-								
	End	23	65.5	35.4	7.5	42.31	26.7	1331	47	
	Total	404								20
	Difference %	164	3.2	3.6	2	-0.41	1.3			32
	Change		4.89%	10.17%	26.67%	0.98%	4.87%	2.18%	8.51%	0.00%
F35										
		18-Feb-								
	Start	23	71.6	34.9	8	46.6	27.3	1429	45	32
	End	05-Jul-23	58.4	28.2	4	42.7	21	1229	33	
	Total	407	40.0	0.7	4	0.0	0.0			
	Difference %	137	13.2	6.7	4	3.9	6.3		36.36	32
	Change		22.60%	23.76%	100.00%	-8.37%	30.00%	16.27%	30.30 %	0.00%
F36										
	Start	10-Jun-23	68	36.5	9.5	43.18	28.3	1362	52	36
	End	15-Jul-23	65.7	34.5	7.5	43.03	26.2	1334	49	
	Total									
	Difference	35	2.3	2	2	0.15	2.1			36
	% Change		2 500/	E 000/	26 670/	0.250/	0.000/	2 4 0 0/	6 1 2 9 /	0.009/
F07	Change		3.50%	5.80%	26.67%	-0.35%	8.02%	2.10%	6.12%	0.00%
F37	Stort	02 100 22	70.4	26.0	9	11.70		1200	E 0	16
	Start	02-Jun-22 19-Sep-	70.1	36.3	9	44.76	27.4	1398	58	46
	End	22	68.8	35.9	9	44.1	26.9	1379	58	



Total Difference	109	1.3	0.4	0	0.66	0.5			46
% Change		1.89%	1.11%	0.00%	-1.47%	1.86%	1.38%	0.00%	0.00%

Patient Code	Column1	Date	Total Body weight in kgs	Total Fat %	Visceral Fat %	Skeletal Muscle in kgs	BMI	Rate Of Metabolism	Body Age in years	Actual Age in Years
M1										
	Start	12-Feb- 22	66.4	26.2	12	48.73	25.9	1517	49	45
		23-Apr-								
	End Total	22	62.9	25.6	10.5	46.8	24.6	1466	46	45
	Difference % Change	70	3.5 5.20%	0.6 2.40%	1.5 9.30%	1.93 -3.96%	1.3 5.00%	51 3.48%	3 6.52%	0.00%
M2	Unange		0.2070	2.4070	5.50 /0	0.0070	0.0070	0.4070	0.0270	0.0070
	Start	01-Feb- 21	81.6	35.3	19.5	52.79	31.5	1709	60	42
	End	03-Jul- 21	67	26	11.5	49.58	25.8	1531	48	42
	Total Difference	152	14.6	9.3	8	3.21	5.7	178	12	0
	% Change		18.10%	26.50%	40.20%	-6.08%	19.50%	11.63%	25.00%	0.00%
M3										
	Start	22-Oct- 21	69.9	28.3	12	50.11	25.8	1567	51	44
	End	25-Mar- 22	69	26	11.5	51	25.5	1664	49	
	Total Difference		0.9	2.3	0.5	0.89	0.3	-97	2	
	% Change		1.30%	7.80%	4.10%	1.78%	1%	-5.83%	4.08%	
M4	Stort	03-Jun- 23	01 5	20.7	145	65.00	31.7	1021	46	
	Start End	16-Sep- 23	91.5 81.6	28.7 27	14.5 11	65.23 59.56	28.2	1921 1767	40	
	Total Difference	105	9.9	1.7	3.5	5.67	3.5	154	5	0
	% Change		0.40%	3.70%	8.20%	-8.69%	4.00%	8.72%	12.20%	0.00%
M5										



		13-Jun-								
	Start	21	66.4	36.4	11	42.23	24.7	1479	52	48
		02-Oct-								
	End	21	66.3	35.8	11	42.56	24.7	1479	51	48
	Total Difference	111	0.1	0.6	0	-0.33	0	0	1	
	% Change		0.15%	1.70%	0.00%	0.78%	0.00%	0.00%	1.96%	
M6										
	Start	01-Sep- 20	69.8	27.2	12.5	50.66	26.7	1567	49	41
	Start	12-Jun-	05.0	27.2	12.5	50.00	20.7	1507		41
	End	21	57.1	19.4	6.5	46.2	21.9	1400	36	42
	Total Difference	284	12.7	7.8	6	4.46	4.8	167	13	-1
	% Change		18.00%	26.50%	48.00%	-8.80%	18.60%	11.93%	36.11%	-2.50%
M7										
		20-Jul-								
	Start	21	79.4	34.5	13	52.8	26	1694	55	
	End	230ct21	72.8	31.4	10.5	50	24.6	1604	50	
	Total Difference	95	6.6	3.1	2.5	2.8	1.4	90	5	
	% Change		8.20%	9.00%	19.00%	-5.30%	5.30%	5.61%	10.00%	
M8										
	Stort	03-Jun- 21	86.7	34	17	57.15	31.1	1800	56	24
	Start	31-Jul-	80.7	54		57.15	51.1	1000	50	31
	End	21	83.1	32.7	15.5	56	29.8	1755	53	31
	Total Difference	58	3.6	1.3	1.5	1.15	1.3	45	3	
	% Change		4.10%	3.80%	9.00%	-2.01%	4.10%	2.56%	5.66%	
M9										
		31-Jan-								
	Start	21	75.4	33.1	16.5	50.44	29.5	1625	57	35
	End	30-Apr- 21	69.9	28.6	13.5	49.9	27.3	1564	51	35
	Total Difference	89	5.5	4.5	3	0.54	2.2	61	6	
	% Change		7.30%	13.50%	18.00%	-1.07%	8.06%	3.90%	11.76%	
M10										
	Start	09-Jan- 20	132.8	40.2	30	79.41	40.5	2456	75	
		27-Jun-								
	End	21	120.2	38.5	26	73.92	36.7	2383	71	
	Total Difference	535	12.6	1.7	4	5.49	3.8	73	4	



	%									
	Change		7.30%	13.50%	18.00%	-6.91%	10.35%	3.06%	5.63%	
M11		05 hum								
	Start	05-Jun- 21	62.1	25.4	7	46.32	22.5	1463	37	
	End	14-Aug- 21	61	24.8	7	45.87	22.1	1447	36	
	Total Difference	70	1.1	0.6	0	0.45	0.4	16	1	
	% Change		7.30%	13.50%	18.00%	-0.97%	1.81%	1.11%	2.78%	
M12										
	Start	04-Jul- 21	69.4	25.7	8	51.56	23.1	1580	43	
	End	18-Sep- 21	71.2	23.8	8.5	54.25	23.7	1613	43	
	Total Difference	76	-1.8	1.9	-0.5	-2.69	-0.6	-33	0	
	% Change		7.30%	13.50%	18.00%	5.22%	-2.53%	-2.05%	0.00%	
M13										
WITO	Start	23-Sep- 21	75.1	33.1	7.5	50.24	27.1	1497	44	
	End	22-Oct- 21	73.2	28.4	10.5	52.41	26.4	1627	43	
	Total Difference	29	1.9	4.7	-3	-2.17	0.7	-130	1	
	% Change		7.30%	13.50%	18.00%	4.32%	2.65%	-7.99%	2.33%	
M14						<b>C</b> !				
	Start	21-Aug- 21	84.2	26.6		61.8	25.1	1818	47	
	End	24-Sep- 21	81.9	25.4	9	61.09	24.5	1789	45	
	Total Difference	34	2.3	1.2	1	0.71	0.6	29	2	
	% Change		7.30%	13.50%	18.00%	-1.15%	2.45%	1.62%	4.44%	
M15		04 4								
	Start	21-Aug- 21 24-Sep-	84.2	26.6	10	61.8	25.1	1818	47	
	End	24-Sep- 21	81.9	25.4	9	61.09	24.5	1789	45	
	Total Difference	34	2.3	1.2	1	0.71	0.6	29	2	
	% Change		7.30%	13.50%	18.00%	-1.15%	2.45%	1.62%	4.44%	