**AI-Driven Fitness and Health**

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Introduction:

AI in fitness is where we delve into what we need to learn or understand when it comes to our health. On the other hand, AI in health represents the culmination of fitness, and when combined, it improves our overall health and conditions in our bodies. However, it can change our fitness routines to avoid symptoms in our bodies. Nonetheless, it also serves as a signal to patients with illnesses to exercise daily for serious conditions like heart disease. When they continuously move, their hearts will pump, normalizing the blood flow to the heart. It's also great as a hobby because it truly encourages you to embrace fitness, improving your body and movements, and enhancing your health as you engage your body's muscles. It's important to remember that if there's an illness, consult a doctor or, better yet, accompany it with exercise for faster body recovery.

Body:  
 The important thing in fitness includes considering health because it helps improve our body's condition and enables us to focus on our daily activities. These components consist of fat, carbs, and protein. Fat is necessary for our body to balance our dietary needs, while carbs are essential as they provide energy for movement and activities. Lastly, protein is vital for our bones; having sufficient protein in the body prevents one from becoming too thin, similar to someone who is sick because protein helps in building muscle. These attributes aid our body in responding effectively. However, this is where incorporating daily exercise comes into play.

The use of AI can indeed help organize our workouts and meals. This is where AI comes into fitness plans, and it can also be asked how fitness contributes to health. Fitness coaches might feel concerned about AI encroaching on their jobs and rendering them obsolete. However, there's no need to worry because it still depends on individuals where they seek advice about fitness and health. AI is just an alternative that can provide immediate answers, but it ultimately depends on individuals where they decide to seek guidance. They are also responsible for what questions they ask about fitness and health. What they can do is observe whom they truly trust for advice, whether it's a real fitness trainer or an AI that can provide quick answers.

The tasks of AI, because they can answer questions that a real fitness trainer cannot, are indeed rare occurrences, but I say that an AI can provide answers more comprehensively compared to a fitness trainer. What a fitness trainer can discuss about workout plans and health, an AI can also handle. You can also ask an AI about how to deal with certain illnesses. AI is capable of quickly generating responses when you provide enough structure in your questions, like how you organize your questions for the AI. Therefore, the solution to situations involving AI and fitness trainers should involve providing knowledge on how to effectively communicate and handle people asking about fitness and health for both AI and fitness trainers.

conclusion:

All the information on how fitness can help with health will be presented here as AI generates what fitness and health are. The characteristics or needs of our bodies such as fats, carbs, and protein, all of these can contribute to our health to balance our daily activities. These can help prevent symptoms and improve our health conditions. These components, when you consult with a doctor and they say you're sick, you take medicine, and you also accompany it with exercise, it can help improve your health record. If you make exercise a daily habit, the recovery of your body will speed up, and it will eventually become a hobby, so if you ever get sick, you'll recover quickly.

**References**

Adegoke, T. (n.d.). *MODULE LEADER: MR FEMI ISIAQ*.

Bays, D. K., Verble, C., & Powers Verble, K. M. (2022). A Brief Review of the Efficacy in Artificial Intelligence and Chatbot-Generated Personalized Fitness Regimens. *Strength & Conditioning Journal*, 10.1519/SSC.0000000000000831. https://doi.org/10.1519/SSC.0000000000000831

Balpande, M., Sharma, J., Nair, A., Khandelwal, M., & Dhanray, S. (2023). AI Based Gym Trainer and Diet Recommendation System. *2023 IEEE 4th Annual Flagship India Council International Subsections Conference (INDISCON)*, 1–7. https://doi.org/10.1109/INDISCON58499.2023.10270066

Ford, M. (2018). Architects of Intelligence: The truth about AI from the people building it. Packt Publishing Ltd. hƩps://books.google.com.ph/books?hl=en&lr=&id=e4d7DwAAQBAJ&oi=fnd&pg=PP1&dq=+ +books+with+single+authored+for+aidriven+fitness&ots=1295garl07&sig=0JVViVLUlRy8DGw2E7XnBzpNT08&redir\_esc=y#v=onep age&q&f=false

Haoran, J., Karungaru, S., Terada, K., & Taylor, G. (2023). AI Fitness Coach at Home Using Image Recognition. *International Journal of Human Movement and Sports Sciences*, *11*, 850–857. https://doi.org/10.13189/saj.2023.110419

How to Use AI in your Coaching or Fitness Business | ACE Fitness. (n.d.). Retrieved 7 February 2024, from hƩps://www.acefitness.org/resources/everyone/blog/8478/ai-health-and-fitnessmaking-the-most-of-an-emerging-technology/

Kasasbeh, A. A. (2023). Applying ArƟficial Intelligence and Machine Learning to Improve Healthcare Outcomes in Marginalized PaƟent PopulaƟons [ProQuest DissertaƟons Publishing]. hƩps://www.proquest.com/docview/2872105482/5A0BE399FBEF4176PQ/1?sourcetype=Dis sertaƟons%20&%20Theses

RevoluƟonizing Fitness: How AI Is Transforming Workouts into Engaging Experiences. (n.d.). Retrieved 7 February 2024, from hƩps://www.linkedin.com/pulse/revoluƟonizing-fitness-how-aitransforming-workouts-srivastava-nroec

Singh, N., Tamrakar, S., Mewada, A., & Gupta, S. K. (2023). ArƟficial Intelligence Techniques in Power Systems OperaƟons and Analysis. CRC Press. hƩps://books.google.com.ph/books?hl=en&lr=&id=dkPHEAAAQBAJ&oi=fnd&pg=PT12&dq=three+chapters+edited+books+for+aidriven+fitness&ots=fNr0zzbX69&sig=kRhTQ9OgAVUrvcJRuZsh1Vk\_EV8&redir\_esc=y#v=onep age&q&f=false

Tan, M., Xiao, Y., Jing, F., Xie, Y., Lu, S., Xiang, M., & Ren, H. (2024). Evaluating machine learning-enabled and multimodal data-driven exercise prescriptions for mental health: A randomized controlled trial protocol. *Frontiers in Psychiatry*, *15*. https://www.frontiersin.org/journals/psychiatry/articles/10.3389/fpsyt.2024.1352420

**About the Authors**

**Rafael S. Fernandez** is a third-year Information Technology student at the University of Santo Tomas, Manila. My academic journey has been a progression of improvement, starting from my first year until my fourth year. When the pandemic hit in 2021, UST transitioned to online learning, and I found myself adapting to a work-from-home setup. Initially, studying alone at home posed challenges, but over time, I became accustomed to it. Despite the initial hurdles, I managed to strike a balance between my studies and the distractions inherent in remote learning. Throughout this period, I succeeded in maintaining and even enhancing my grades, navigating the trials brought about by the pandemic. I made a personal commitment to see my education through to the end. Research holds a special fascination for me. I enjoy the process of synthesizing information from various sources and meticulously organizing references. My strength lies in effectively presenting the findings of my research endeavors. I derive satisfaction from the meticulous task of citing articles and arranging references, often adhering to APA 7th Edition guidelines. Engaging in this process fuels my motivation to undertake further research and delve deeper into various topics. In reflecting on my approach, I've come to realize the value of thoroughness in citation and the importance of revisiting and refining details. This mindset has instilled in me the confidence to cite extensively, knowing that I can always revisit and perfect my work.