

designing the right workout plan for a client's body type

understanding body types

when creating an effective workout plan, it is crucial to consider the client's natural body type. genetics play a significant role in determining a person's bone structure and the body's ability to support various physical activities. there are three principal body types:

endomorph body type:

characteristics: higher body fat percentages, pear-shaped body, more likely to store fat.

ectomorph body type:

characteristics: tall, lanky individuals, difficulty gaining weight (both muscle and fat), high metabolism.

mesomorph body type:

characteristics: v-shaped frame in the torso, easily builds muscle, fast metabolism.

combination body types

people can also exhibit characteristics of multiple body types. for example, as someone loses weight, their body may start to show a more muscular frame. depending on factors such as habits and genetics, this may be the best outcome they can achieve. it's important to help clients, particularly mesomorphs, manage their expectations realistically.

the role of diet in fitness

creating a workout plan is only part of the equation; diet plays a significant role in achieving fitness goals. here are some key points to consider:

you can't out-train a bad diet:

professional boundaries: as a fitness professional, remember that diet advice should come from a registered dietitian or similarly credentialed professional.

macronutrient tracking: encourage clients to track their macronutrients—healthy fats, protein, and carbohydrates. this is a reliable method for fat loss and is especially recommended for clients at higher risk of weight gain due to a lower basal metabolic rate.

diet and exercise balance:

realistic expectations: most clients cannot eat whatever they want just because they work out hard. remind clients that they can't always exercise away the calories they consume, particularly as they age.

long-term metabolism: while some teenagers and clients in their early twenties may temporarily manage with a higher calorie intake, this metabolism boost does not last forever. emphasize the importance of a balanced diet alongside consistent exercise.

conclusion

incorporating knowledge of body types and realistic dietary guidelines helps create more effective and personalized workout plans. balancing exercise with proper nutrition is essential for achieving and maintaining fitness goals, ensuring clients can reach their full potential while managing expectations.

training for each body type

working with your body is easier than working against it. tailoring a program to a client's body type can help maintain their fitness level and encourage adherence. training a mesomorph like a cross-country athlete can result in injury or discomfort, decreasing the likelihood of program adherence. let's explore ideal programming for each body type.

endomorph training

general characteristics: typically obese, higher body fat percentage, pear-shaped body, more likely to store fat.

strength training: focus on increasing lean muscle mass with exercises like squats, lunges, and deadlifts. weight training helps increase basal metabolic rate and burn more calories.

cardio training: engage in low-intensity cardio for about an hour per week, especially lower body workouts. use machines like ellipticals, rowers, or other low-impact equipment.

psychological benefits: familiarity with exertion due to carrying extra weight. emphasize that strength training will not bulk up women.

injury prevention: avoid repetitive stress injuries. start with 20 minutes of walking at a time for the first six weeks, then gradually increase.

ectomorph training

general characteristics: lean, tall, lanky, high metabolism, difficulty gaining muscle or fat.

strength training: use moderate resistance circuit training. focus on bodyweight exercises to avoid overloading.

cardio training: can sustain longer durations. incorporate high-intensity interval training (hiit) for toning.

focus: dumbbell exercises, isolating muscle groups, aerobic exercise to maintain engagement.

mesomorph training

general characteristics: easily build muscle, broad shoulders, tight waist, fast metabolism.

strength training: effective with heavy weights and powerlifting. focus on proper form.

cardio training: high-intensity interval training is beneficial.

general guidelines

body types are generalities, not hard rules. genetics and controllable factors like diet and exercise impact fitness abilities. tailoring training to body types ensures safety, effectiveness, and client satisfaction.

genetic factors and muscle growth

genetics and fitness

impact on abilities: genetics determine fitness capabilities, endurance, strength, and muscle growth.

genes influencing muscle growth: over 40 genes are known to impact hypertrophy in skeletal muscles.

testosterone and muscle decline: testosterone levels, affected by genetics and age, impact muscle mass and strength.

genetic testing and training

using genetic information: helps design better workouts, set realistic goals, and motivate clients.

strength goals: determine genetic tendencies to set appropriate strength goals.

training based on weight loss genotypes: low or below-average genotypes may require resistance training and appropriate cardio.

genetic testing for fitness

insights provided: weight loss potential, training responses, energy utilization, recovery needs, injury risks.

customized plans: genetic tests inform personalized fitness and nutrition plans, enhancing effectiveness.

dna and nutrition

nutrigenomics

study of interactions: between dna, nutrition, and health.

impact on diet: personalized genetic information helps set reasonable goals and create effective plans.

macronutrient utilization: information on protein, fat, and carbohydrate utilization guides dietary recommendations.

macronutrient utilization

protein utilization:

normal genotype: 15-30% of daily calories from protein.

enhanced genotype: 25-35% of daily calories from protein, with a focus on regular strength training.

fat utilization:

normal genotype: 20-35% of daily calories from fat.

low genotype: 15-25% of daily calories from fat, promoting weight loss.

carbohydrate utilization:

normal genotype: focus on calorie count and high-quality carbs.

enhanced genotype: up to 65% of daily calories from carbs, with 20% from fat.

low genotype: low-carb diet, rich in protein and healthy fats, using tools like the glycemic index.

scope of practice

role of a coach: educate and guide clients based on genetic test results while avoiding medical advice.

motivation and personalization: use genetic information to personalize fitness routines and increase client motivation.

conclusion

genetic testing revolutionizes health and fitness by providing personalized information for better results. trainers must understand and use these reports to help clients adapt their lifestyles, diets, and fitness routines effectively. for further expertise, consider issa's dna-based fitness coach course.

eating for your body type

when it comes to nutrition and training, there is no one-size-fits-all approach. understanding body types helps tailor individualized plans to achieve goals and reach full-body potential.

endomorph body type

characteristics: higher body fat, weight carried around the belly, hips, and thighs.

macronutrient profile: lower tolerance to carbs. even distribution of protein, healthy fats, and carbohydrates. carbs should come mostly from vegetables and whole grains, best consumed during or after workouts.

ectomorph body type

characteristics: thin, long, lanky, low body fat, high metabolism.

macronutrient profile: higher carb tolerance, fewer fats. predominantly carbohydrates, lean protein, and moderate fats. complex carbohydrates are essential.

mesomorph body type

characteristics: muscle-dominant, hourglass figure, medium build frame.

macronutrient profile: requires higher calorie intake, balance between all macronutrients. fast-digesting carb-dense foods during weight training to support muscle building.

general nutrition guidelines

each body type has strengths and weaknesses. tailoring plans based on body type helps manage metabolism and hormone responses, providing clues about how the body processes nutrients.

how dna affects nutrition

nutrigenomics

definition: study of interactions between dna, nutrition, and health.

personalized information: helps set reasonable goals, recommend macronutrient ratios, and create effective workout and diet plans.

nutrient utilization

macronutrients:

protein: "normal" genotype (15-30% daily calories), "enhanced" genotype (25-35%).

fat: "normal" genotype (20-35% daily calories), "low" genotype (15-25%).

carbohydrates: "normal," "enhanced" (up to 65%), "low" genotypes.

micronutrients: information on vitamins a, b6, b9, b12, c, d, calcium, iron, magnesium, and zinc. genotypes impact nutrient absorption and utilization.

health impacts

cholesterol sensitivity: genotypes indicate response to dietary fat.

insulin sensitivity: genotypes inform dietary fat intake recommendations.

disease risk: knowledge of genetic makeup helps avoid disease and promote overall health.

scope of practice

guidance vs. medical advice: provide guidance on healthy diets but avoid medical advice for chronic illnesses.

training and certification: staying updated on genomics helps trainers provide better guidance.

protein, carbs, and fat: how dna affects macros in your diet

genetic testing for macronutrients

importance: personalized information on how clients process macronutrients and their ideal intake ratios.

protein utilization:

normal genotype: 15-30% daily calories.

enhanced genotype: 25-35%, focus on strength training.

fat utilization:

normal genotype: 20-35% daily calories.

low genotype: 15-25%, promote weight loss.

carbohydrate utilization:

normal genotype: no major differences based on carb proportion.

enhanced genotype: high-carb diet (up to 65%).

low genotype: low-carb diet, focus on complex carbs.

guidelines for coaches

scope of practice: educate and guide clients based on genetic results.

motivation and personalization: use genetic information to personalize plans and motivate clients.

how to develop a workout plan based on genetics

introduction

you know each client needs a personalized program to achieve results. a client's unique genetic makeup plays a pivotal role in program design. applying necessary techniques to complement each client's distinct dna sequence ensures efficient exercise and superior results. let's dive deeper into programming considerations.

details of dna fitness testing

genetic testing varies based on the purpose of the test. results from a dna test provide insights on:

health risks for illness or disease

weight-loss potential

lifestyle inhibitors

prenatal or newborn issues

fitness traits revealed by dna testing

dna fitness testing helps understand a client's fitness traits:

weight loss potential

training responses

energy utilization

recovery needs

injury risks

benefits of genetic testing for program design

genetic testing allows for the design of accurate programs, predicting clients' future success. it improves programming abilities, avoiding the trial-and-error process with new clients. exercise impacts a client's lifestyle, amplifying weight loss, improved diet, increased muscle mass, and overall better health.

fat burning capabilities

genetic testing reveals how certain genes influence fat burning capabilities. the scoring spectrum for fat loss response to cardio is as follows:

normal reading: most common, similar mitochondrial adaptations from aerobic exercise, varying fitness improvements.

enhanced reading: clients use stored fat for energy quicker than normal. they benefit from minimum prescribed cardio to achieve health and fitness goals, burning more fat.

performance and strength traits

genetics impact performance-related traits:

muscular strength

primary muscle fiber types

vo2 max

muscle mass

height

flexibility

coordination

intellectual ability

body composition response to strength training

enhanced genotype: clients lose weight, decrease body fat, and build muscle efficiently.

normal genotype: requires more frequent training, emphasis on nutrition and cardio.

below average genotype: needs more gym time with exercise variety, heavy lifting, and high intensity for results.

body response and recovery

systemic inflammation scores help prescribe recovery schedules. each client has a unique training limit:

well above average score: indicates longer healing and recovery times, necessitating strict warm-ups, cool-downs, and recovery techniques.

vo2 max and stroke volume factors: important for athletes or performance goals. higher stroke volume improves exercise efficiency.

developing workout plans based on dna fitness testing

fitness and nutrition professionals can create plans based on dna test results, including:

weight loss tendency

exercise response

mental and physical potential

recovery needs

injury risks

example: weight loss tendency

below average score: client must focus on proper nutrition and exercise behavior to lose weight and prevent weight regain.

example: fat loss response to cardio

normal score: prescribe 4-6 days of cardio per week, 45-60 minutes each day.

enhanced score: client needs less time for noticeable results.

example: body composition response to strength training

enhanced reading: requires 1-2 days per week for steady improvements. optimal results with 3-4 days of strength training.

what you get with a dna test for fitness

at-home dna testing kits provide reports on:

exercise response

diet markers

diet type recommendations

food sensitivities

alcohol responses

predispositions

considerations when choosing a dna fitness company

information provided

company reviews

cost comparison

test conclusiveness

increasing motivation and potential

understanding genetic testing results increases motivation and potential for each client. clients feel confident knowing their workouts are tailored specifically for them. genetic testing shows clients the control they have over their results when committed to the right plan.

conclusion

to base your clients' training on dna fitness testing, explore issa's dna-based fitness coach course. this course provides tools and knowledge to prescribe programs based on your client's dna, setting you apart from the rest.

eating for your body type

endomorph body type

general characteristics:

typically obese, higher body fat percentage.

pear-shaped body, more likely to store fat.

dietary recommendations:

reduce carb intake and focus more on healthy proteins and fats.

carbs should primarily come from vegetables and whole-grain foods.

limit intake of breads, beverages, pastas, junk food, and high-sugar fruits to avoid blood sugar spikes.

ectomorph body type

general characteristics:

thin, long, lanky, low body fat, low body weight.

smaller bone structure, shoulders narrower than hips.

typically thyroid dominant with a higher basal metabolic rate (bmr), leading to a fast metabolism.

dietary recommendations:

higher tolerance for carbohydrates; diet should be predominantly carbs with moderate protein and fat.

focus on complex carbohydrates to stay fuller longer and avoid highly processed foods like chips and candy.

consume most carbohydrates post-workout, especially if training for endurance or muscle gains.

avoid high-fat diets as ectomorphs' fast metabolisms crave carbohydrates.

potential issues:

risk of "skinny fat" physique where visceral fat is high despite a thin appearance, leading to cardiovascular and metabolic issues.

mesomorph body type

general characteristics:

muscle-dominant individuals, often with an hourglass figure and medium build.

genetically predisposed to build muscle mass easily; weight loss and gain occur quickly with dietary and workout changes.

dietary recommendations:

require a higher calorie intake to sustain muscle building.

need the most protein intake of all body types.

balanced diet with a variety of fats, complex carbs, and proteins.

consume fast-digesting, carb-dense foods or drinks during weight training to support lean muscle mass.

be cautious of hidden sugars in foods like yogurts, sauces, instant oatmeals, and peanut butters. always check nutrition labels.

general guidelines

body types overview:

each body type has strengths and weaknesses; no single type is superior.

most people are a hybrid of two or even three body types, displaying unique characteristics from each.

body typing helps understand metabolic differences and how individuals respond to food intake in terms of volume and type.

diet and exercise:

eating less and moving more isn't always sufficient, especially as one ages.

tools to determine calorie needs provide a baseline but must adapt to the ever-changing body.

helping clients eat the right amounts supports reaching body composition and fitness goals.

conclusion

understanding your body type aids in developing nutritional plans tailored to individual needs, supporting overall health and fitness

goals. as the body changes, so do its nutritional needs, requiring ongoing adjustments.

for further knowledge in nutrition, consider the issa sports nutrition program to earn your certification from the comfort of your own home.

how does dna affect your nutrition?

introduction

anyone who has ever struggled to lose weight, and the trainers working with them, knows that there is no single best diet or nutritional plan that works for everyone. a significant reason for this is our individual genetic makeup. modern technology now allows us to take simple tests for specific genes, providing information that helps explain some of the struggles people experience regarding nutrition, health, and weight.

everyone has a unique genome that impacts everything from how we utilize protein and fat to whether we absorb enough iron from the foods we eat. knowledge of these individual differences is a powerful tool. if you have clients interested in taking health or fitness dna tests for personalized reports, it's important to know how to use the results. find out what these reports tell you about a client's nutritional needs and limitations and how to use that information for their benefit.

dna and nutrition – what is nutrigenomics?

nutritional genomics, or nutrigenomics, is the study of the interactions between an individual's dna, nutrition, and health. researchers in this field look at how foods and nutrients impact human genetics and how genes inform the body's response to nutrients. being able to look at an individual's genetic makeup is now less expensive and more accessible than ever. any one of your clients can get a test done that looks specifically at how their genes impact nutrition, health, fitness, body composition, and more.

how does genetics affect nutrition?

researchers are working to uncover generalities about the human genome and nutrition, but it is also possible to get individualized data. for trainers and clients, this personalized information is crucial for understanding how macronutrients impact individuals. with a fitness and nutrition dna report, you can determine goals and strategies for clients, helping them set reasonable goals, recommend appropriate macronutrient ratios, and create nutritional plans considering vitamin or mineral processing issues.

dna tests and nutrient utilization

a client's dna-based nutrition report includes information about how they utilize nutrients, including macronutrients, vitamins, and minerals. genetic differences can lead to variations in how these nutrients are absorbed and used, and the proportions and amounts that maximize health and wellness.

macronutrients

protein:

normal genotype: consume about 15 to 30 percent of daily calories from protein. weight loss does not depend significantly on protein intake.

enhanced genotype: lose weight more effectively with a higher protein proportion, about 25 to 30 percent of daily calories.

fat:

normal genotype: weight loss is independent of the percentage of fat in the diet if calorie intake is reasonable.

low genotype: consume a smaller proportion of fat, about 15 to 25 percent of daily calories.

carbohydrates:

normal genotype: no major differences in weight loss based on carb proportions.

enhanced genotype: benefit from eating more carbs, up to 65 percent, focusing on complex carbs like whole grains and beans.

low genotype: eat fewer carbs and avoid starchy foods and processed grains. the glycemic index is a helpful tool for choosing better carb sources.

micronutrients

micronutrient utilization is crucial for overall health, though less important for weight loss. health and fitness dna tests provide data on vitamins a, b6, b9, b12, c, and d, as well as calcium, iron, magnesium, and zinc. certain genotypes indicate how well a client absorbs and utilizes these nutrients, which is essential for health and can impact nutrition and weight goals.

b12 deficiency: low genotype can cause pernicious anemia, leading to serious health risks and workout difficulties due to fatigue.

calcium absorption: low genotype increases the risk of osteoporosis, which can interfere with fitness due to weaker bones.

nutrition and genetics impact on disease risk and health

clients may seek advice on a healthy diet to avoid disease and live well. genetic reports provide various types of information to help advise clients effectively.

cholesterol sensitivity: some genotypes increase cholesterol levels more rapidly with dietary fat intake.

insulin response: certain genes affect insulin sensitivity with fat in the diet, influencing dietary recommendations.

healthy fats: polyunsaturated fats like omega-3 fatty acids are essential, and some genotypes need to focus on adding these to their diet.

avoid giving medical advice

when using dna reports to guide nutrition choices for clients, avoid providing medical advice without proper qualifications. provide guidance on planning and eating a healthy diet for weight and overall wellness, but refer clients to a doctor for specific medical advice related to chronic illnesses.

conclusion

the use of individualized dna reports is revolutionizing health, wellness, and fitness. personal trainers need to be part of this change by understanding these reports and using the information to help clients adapt their lifestyles, diets, and fitness routines for better results. to stay updated on related science, consider obtaining issa's dna-based fitness coach certification.

protein, carbs, and fat - how dna affects macros in your diet

introduction

nutrition coaches and personal trainers are now equipped with more information than ever to help their clients. genetic testing is increasingly popular, providing personalized information about how clients process macronutrients (protein, fat, and carbohydrates) and their ideal intake ratios. understanding these genetic factors is crucial for tailoring effective nutritional plans.

importance of genetic factors affecting macros in your diet

macronutrients—protein, fat, and carbohydrates—are essential for providing energy, supporting growth, and maintaining health. genetic variations impact how individuals utilize these nutrients, influencing weight loss, muscle mass, and overall health.

science proves we're all different

a study called the predict study followed over 1,000 participants, including identical twins, and measured their responses to the same foods. it concluded that about one-third of the variations in responses were attributed to individual genetics.

macro ratios vary for populations and individuals

most people can follow general recommendations for macronutrient ratios for good health and weight maintenance. however, special groups and situations, like weight loss or muscle building, may require different ratios. genetic information helps determine how clients utilize each macronutrient and how their weight and body composition respond.

protein utilization

normal genotype:

most people fall into this category.

recommended daily protein intake: 15 to 30 percent of total calories.

higher activity levels may require the higher end of this range.

enhanced genotype:

these clients benefit from a higher protein intake (25 to 35 percent of daily calories).

they may lose lean muscle when losing weight, so strength training is essential to avoid muscle loss and enhance fat loss.

fat utilization

normal genotype:

most people have this genotype.

fat intake: 20 to 35 percent of daily calories, with no more than 10 percent from saturated fats.

low genotype:

these clients are more sensitive to types and amounts of fat in the diet.

a low-fat diet (15 to 25 percent of daily calories) can promote weight loss.

carbohydrate utilization

normal genotype:

weight loss does not significantly vary with carbohydrate intake proportion.

focus on overall calorie count and high-quality carbohydrates.

enhanced genotype:

these clients benefit from a high-carb diet (up to 65 percent of daily calories).

fat intake should be restricted to 20 percent, focusing on high-quality carbs and avoiding refined grains and sugar.

low genotype:

these clients benefit from a low-carb diet rich in protein, healthy fats, and vegetables.

avoid processed, refined carbs and sugar, using tools like the glycemic index to choose better carb sources.

scope of practice for genetic testing

as a coach, it's essential to stay within your scope of practice. you can provide guidance on nutrition and make recommendations based on genetic results but avoid giving medical advice. always refer clients to a doctor for specific medical issues.

conclusion

understanding how genetics affect macronutrient utilization helps create personalized nutritional plans for clients, enhancing their

health and fitness outcomes. staying updated on genetic testing and its applications in nutrition is crucial for modern fitness professionals. consider obtaining certification as a dna-based fitness coach to further your expertise.