

## Muse Nutrition - Sample Health Assessment and Nutrition & Lifestyle Protocol

## **Section 1.0: Summary**

#### 1.1 General:

The client, initials AB, is a 35 year-old male, with a weight of 180lbs (provided during intake interview) and height of 5'10" (provided during intake interview). His chief concerns, in order of importance, are: psoriasis management, knee injury management, and fatigue/energy/sleep management. The client's future health goals consist of obtaining practical strategies for managing nutritional program, and lose 15lbs by July 2019 to increase muscle tone.

#### 1.12 Chief Concern #1: Psoriasis Management:

- Autoimmune disease started in grade 1 (approximately 7 years old)
- Located in groin area and on right eye lid, more in groin area (provided during intake interview)
- Tonsils removed in grade 2 (approximately 8 years old)
- Low level inflammation on a day-to-day basis (provided during intake interview)
- Client advised diet, sleep, and stress does not trigger severity or occurrences (provided during intake interview)
- Client tried a vegan diet (Jun 2018-Jan 2019) but did not decrease symptoms (provided during intake interview)
- Uses Topilene steroid cream once a month if required (provided during intake interview)
- Happiness is 10 out of 10
- Client clarified overall energy is 8, but 6 if sleep less than 7-8 hours
- Client clarified overall stress is 6, but 8 when overstressed from work
- Major cause of stress is work, but also enjoys his work
- Sometimes snack on junk food (i.e. popcorn, cookies, etc.) when stressed (provided during intake interview)
- Typically only snacks when he has calorie deficit (provided during intake interview)

#### 1.13 Chief Concern #2: Knee Injury Management:

- Incident occured in March 2018 while performing curtsy lunge at the gym (provided during intake interview)
- Sharp pain felt over the front of the knee (provided during intake interview)
- Client saw physiotherapist and was told pain may be tendonitis (provided during intake interview)
- No x-rays or MRIs were ordered or performed (provided during intake interview)
- Physiotherapist gave strengthening exercises to client (provided during intake interview)



- Knee recovery got better, but then stopped doing physiotherapy exercises (provided during intake interview)
- Client joined grass volleyball in summer 2018, pain symptoms returned (provided during intake interview)
- On vacation earlier in 2019 and knee pain symptoms were not noticed (provided during intake interview)
- Upon return and re-started daily routine, throbbing discomfort returned (provided during intake interview)
- Discomfort often in front of knee, especially when going up and down stairs (provided during intake interview) (provided during intake interview)
- Client hasn't been doing physiotherapy exercises
- Client forgot to disclose in intake form he was taking glucosamine (provided during intake interview)

#### 1.14 Chief Concern #3: Fatigue/Energy/Sleep Management:

- Happiness is 10 out of 10
- All relationships are fulfilling (provided during intake interview)
- Client clarified overall energy is 8, but 6 if sleep less than 7-8 hours (provided during intake interview)
- Client generally sleeps 7-8 hrs/night and sleeps/wakes at consistent times (provided during intake interview)
- Sleeps between 10pm and 11pm, and wakes at 6:10am
- Client clarified overall stress is 6, but 8 when overstressed from work (provided during intake interview)
- Stress relief mechanisms: deep breathing, self talk, and support from friends
- Sometimes snack on junk food (i.e. popcorn, cookies, etc.) when stressed (provided during intake interview)
- Typically only snacks when he has calorie deficit (provided during intake interview)
- Major cause of stress is work, but also enjoys his work
- Works 8 hrs/day (8am-4pm) 5 days/week (M-F) as occupational therapist
- Stress symptoms: shallow breathing, shoulder tensions, and irritability
- Started a new position in March 2019 (provided during intake interview)
- Client was in a temporary role between May 2018 and March 2019 (provided during intake interview)

#### 1.2: Past Medical History:

- Was hospitalized as an infant from rolling down stairs in a stroller (provided during intake interview)
- Diagnosed with psoriasis at age 7
- Tonsils removed at age 8
- Knee injury from curtsy lunge occurred in March 2018
- Maternal grandmother had high blood pressure and diabetes



## 1.3 Digestive Health:

- 1-2 bowel movements a day. Not loose. Occasionally strain with less fibre.
- No allergies to any food, but most likely has dairy sensitivity
- Has gas from dairy products. According to client, the gas smells awful (provided during intake interview)
- Consumes alcohol 1 to 2x a month
- Consumes high protein, low fibre, and moderate carbohydrates on daily basis
- Meals often not balanced from macronutrient perspective
- Though meals not balanced, energy and mood is 10 out of 10 most days

## 1.4 Gynecological Health:

Not applicable

#### 1.5 Medications:

- Topilene cream once a month
- Cetirizine antihistamine 1x a day for allergy from cats, dogs, horses, dust, and blue grass. One pill is 10mg. Also uses it for seasonal allergies.
- Has not used antibiotics in last 5 years

#### 1.6 Supplements:

- Jamieson vitamin D for general health. Taken vitamin D 1 yr. 1 pill a day. 1 pill contains 1000 IU.
- Progressive fish oil for general health. Taken fish oil for 2 yrs. One tsp contains 4150mg cold water fish oil blend.
- Client disclosed during intake interview that he takes Nature's Bounty glucosamine for knee injury. Taken for 6 mths, 1 pill per day. One pill contains 900 mg.
- Client does not notice if supplements help with minimizing psoriasis inflammation.

## 1.7: Allergies/Sensitivities:

- Allergic to cats (severity 7/10), dogs (severity 7/10), horses (severity 9/10), dust (severity 2/10) and blue grass (severity 2/10) (provided during intake interview)
- Also has seasonal allergies (severity 2/10) (provided during intake interview)
- Has had seasonal allergies and allergies to cats, dogs, horses, dust and blue grass since grade 2 or 3, which is around the same time as when he was diagnosed with psoriasis and had his tonsils removed (provided during intake interview)
- Has gas when consume dairy products



#### 1.8 Toxic Concerns:

- Lives in the city
- Takes allergy pills once a day
- Consumes alcohol 1-2x a month, and does not smoke or do drugs
- Does not consume organic food; therefore, possible exposure to pesticides and animal growth hormones (provided during intake interview)
- Consumes high amounts of peanuts and peanut butter, which has aflatoxins, a toxin that has been linked to DNA mutation, which can lead to a compromised immunity and diseases such as cancer

#### 1.9 Psychosocial History:

#### • 1.91 Emotional:

- o Brought up religious but currently not attached to any specific belief system
- Maternal grandmother passed away in 2005 and client is doing better with it now (provided during intake interview)

#### • 1.92 Occupational:

- Therapist and enjoys his work
- o Been in current role since spring 2019

#### 1.93 Relational:

- Lives with his boyfriend (provided during intake interview)
- o Fulfilled in all his relationships and happiness is 10/10

#### 1.94 Recreational:

- Does not smoke or use recreational drugs
- o Exercises 5x week for 1 hour each time that includes weight training
- Wide range of interests including weight training, mental health, nutrition, outdoor activities like dragon boating and hiking, travel, and reading
- o Client makes time for all of these activities and also vacations regularly

#### • 1.95 Sleep, Energy, Mood, and Stress:

- o Sleeps through the night for 7 to 8 hours a night and generally feels rested
- Sleeps and wakes at consistent times (provided during intake interview)
- Avoids screen time an hour before bed (provided during intake interview)
- o Energy/mood is 8/10 or above normally unless sleeps less than 7-8 hrs
- Stress is normally at 6/10 unless work is stressful, then it is at a 8/10 (provided during intake interview)
- o And happiness is 10/10



## **Section 2.0: Objective Findings:**

#### **2.1 Tests:**

#### • 2.11 Chief Concern #1: Psoriasis Management:

- No tests were required; however, will recommend client to remove inflammatory foods such as dairy, gluten, and sugar from his diet for 6 months to see if psoriasis inflammation decreases
- Client also consumes very little healthy fats, which is a natural antiinflammatory agent that can help client manage psoriasis better

#### • 2.12 Chief Concern #2: Knee Injury Management:

- No tests were required; however, will advise client to go see another physiotherapist for a second opinion on his knee injury who is experienced in physical, emotional, and mental rehabilitation as client mentioned that he has been avoiding certain lower body exercises to avoid causing more injury. Therefore, it is unclear how much of the pain is physical versus emotional and/or mental, hence, seeking another opinion on this matter.
- Will recommend to client to request an x-ray and/or MRI of his knee if injury persists after seeing a new physiotherapist
- Client also consumes very little healthy fats, which is a natural antiinflammatory agent that can help client manage inflammation in the knee
- Client also consumes high amounts of inflammatory foods such as dairy and sugar, which contributes to inflammation

#### • 2.13 Chief Concern #3: Fatigue/Energy/Sleep Management:

- No tests were required as client clarified during intake interview that his sleep quality is typically at an 8/10, energy is typically 8/10, happiness is 10/10, and stress is typically 6/10
- Will recommend to client to slightly increase sleep and develop sleep hygiene to increase energy and decrease stress, and try it out for 3 months to see if his energy improves
- Client also consumes very little healthy fats, which is a building a block of cells and many hormones (i.e. growth hormone, testosterone, etc.) to allow the body to repair itself during sleep, as well as provide the body with energy during wake.
- Client also consumes high amounts of rice cakes, rice crackers, and sugar (jam) which contributes to inflammation and possible cortisol spikes during the day which means possible irregular energy levels



# 2.2 7-Day Diet Diary:

7-Day Food Diary							
Meal	Thursday 16	Friday 17	Saturday 11	Sunday 12	Monday 13	Tuesday 14	Wednesday 15
Breakfast	1/2 grapefruit, 1 scoop of whey protein powder, cup of black coffee, 1 litre of water	1/2 grapefruit, 1 scoop of whey protein powder, cup of black coffee, 1 litre of water	1/2 grapefruit, 1 scoop of whey protein powder, cup of black coffee, 1 litre of water	1/2 grapefruit, 1 scoop of whey protein powder, cup of black coffee, 1 litre of water	1/2 grapefruit, 1 scoop of whey protein powder, cup of black coffee, 1 litre of water	1/2 grapefruit, 1 scoop of whey protein powder, cup of black coffee, 1 litre of water	1/2 grapefruit, 1 scoop of whey protein powder, cup of black coffee, 1 litre of water
Breakfast Time	6:30am	6:30am	8:00am	8:00am	6:30am	6:30am	6:30am
Snack	Denny's Grand Slam Breakfast!	3/4 cup of egg whites, pan fried in .5 teaspoon of coconut oil	3/4 cup of egg whites, pan fried in .5 teaspoon of coconut oil	3/4 cup of egg whites, pan fried in .5 teaspoon of coconut oil	3/4 cup of egg whites, pan fried in .5 teaspoon of coconut oil	3/4 cup of egg whites, pan fried in .5 teaspoon of coconut oil	3/4 cup of egg whites, pan fried in .5 teaspoon of coconut oil
Snack Time	7:30am	10:00am	11:00am	11:00am	10:00am	10:00am	10:00am
Lunch	2 baked chicken drumsticks, spinach salad with homemade balsamic vinegar	2 baked chicken drumsticks, spinach salad with homemade balsamic vinegar	2 baked chicken drumsticks, spinach salad with homemade balsamic vinegar	2 baked chicken drumsticks, spinach salad with homemade balsamic vinegar	2 baked chicken drumsticks, spinach salad with homemade balsamic vinegar	2 baked chicken drumsticks, spinach salad with homemade balsamic vinegar	2 baked chicken drumsticks, spinach salad with homemade balsamic vinegar
Lunch Time	1:00pm	1:00pm	1:00pm	1:00pm	1:00pm	1:00pm	1:00pm
Snack	scoop of whey protein powder, 8 rice crackers, 6g peanuts	scoop of whey protein powder, 8 rice crackers, 6g peanuts	scoop of whey protein powder, 8 rice crackers, 6g peanuts	scoop of whey protein powder, 8 rice crackers, 6g peanuts	scoop of whey protein powder, 8 rice crackers, 6g peanuts	scoop of whey protein powder, 8 rice crackers, 6g peanuts	scoop of whey protein powder, 8 rice crackers, 6g peanuts
Snack Time	3:00pm	3:00pm	3:00pm	3:00pm	3:00pm	3:00pm	3:00pm
Dinner	meat lasagna	6 baked chicken fingers	1 cup of 2% cottage cheese				
Dinner Time	6:00pm	6:00pm	6:00pm	6:00pm	6:00pm	6:00pm	6:00pm
Snack	scoop of whey protein powder, 2 rice cakes with 1 teaspoon natural peanut butter and 1 teaspoon lingonberry jam	slice of key lime pie, carrot cake, kale salad	scoop of whey protein powder, 2 rice cakes with 1 teaspoon natural peanut butter and 1 teaspoon lingonberry jam	scoop of whey protein powder, 2 rice cakes with 1 teaspoon natural peanut butter and 1 teaspoon lingonberry jam	scoop of whey protein powder, 2 rice cakes with 1 teaspoon natural peanut butter and 1 teaspoon lingonberry jam	scoop of whey protein powder, 2 rice cakes with 1 teaspoon natural peanut butter and 1 teaspoon lingonberry jam	scoop of whey protein powder, 2 rice cakes with 1 teaspoon natural peanut butter and 1 teaspoon lingonberry jam
Snack Time	8:00pm	8:00pm	8:00pm	8:00pm	8:00pm	8:00pm	8:00pm
Energy Level	7.5/10 - head cold	7.5/10 - head cold, poor sleep	10.0/10.0	10.0/10.0	10.0/10.0	10.0/10.0	10.0/10.0
Mood	7.5/10 - head cold	7.5/10 - head cold, poor sleep	10.0/10.0	10.0/10.0	10.0/10.0	10.0/10.0	10.0/10.0
Bowel Movement Y/N	Y	Y	Y	Y	Y	Y	Y



Colour Legend		
	Unhealthy Choices	
Protein Source		
	Dairy Sources	
	Fruits and Vegetables	
	Healthy Fat Sources	
	Whole Grains	

## 2.21 Fibre and Protein Intake:

According to the Health Canada website, on average men should consume 38g of fibre daily. And according to the Healthlink BC website, my client should intake approximately 65.45g of protein (180lbs / 2.2 = 81.82 kg. 81.82 kg x 0.8 = 65.45 g of daily protein need).

Below is a chart of the client's fibre and protein intake for Tuesday and Wednesday. Thursday and Friday were not used, as those days were not typical days for the client.

Food Items	Fibre	Protein
1/2 Grapefruit (According to myfitnesspal website)	0g	0g
1 scoop of whey protein (According to nutrition label)	1g	35g
Black coffee (According to myfitnesspal website)	0g	0.3g
3/4 cup of egg whites (According to nutrition label)	0g	21g
Coconut oil (According to nutrition label)	0g	0g
Chicken drumsticks (According to myfitnesspal website)	0g	24.8
Spinach (According to myfitnesspal website)	2g	2g
Balsamic vinegar (According to nutrition label)	0g	0g
Rice crackers (According to nutrition label)	0g	1g



#### muse

Rice cakes (According to nutrition label)	1g	1g
Cottage cheese (According to nutrition label)	0g	28
Peanuts (According to nutrition label)	0.6g	1.6g
Peanut butter (According to nutrition label)	0.33g	1g
Jam (According to nutrition label)	0g	0g

According to the chart, the client consumes on average 3.93g of fibre (10.34% of 38g) and 115.7g of protein (76.78% over daily limit of 65.45g) a day.

#### 2.3 Summary of Diet:

#### • 2.31 Unhealthy Choices:

- o Primarily consists of black coffee, rice cakes and rice crackers, and jam
- Not concerned about black coffee since it's only one cup a day
- Rice cakes/crackers may be fairly low calorie, but often contain no healthy fats, no or little fibre, minimal vitamins and minerals, and little or no protein
- Rice cakes are often refined carbohydrates (quickly digested and converted into sugar), which then causes insulin to spike in the body, especially with the addition of iam
- Too much insulin in the blood causes cells to absorb more sugar than they need to, which means less sugar in the bloodstream. More in assessment section of report.
- Too much insulin can also cause the liver itself to release less sugar from food that is consumed, which can result in hypoglycemia (low blood sugar level), which would affect energy levels

#### • 2.32 Protein Sources:

- Consists primarily of chicken drumsticks, peanuts, and peanut butter, as well as dairy products (see below under "dairy sources")
- o Extremely high protein intake
- Consumes high amounts of peanuts and peanut butter, which has aflatoxins, a toxin that is often linked to DNA mutation, which can lead to a compromised immunity and diseases such as cancer



- Client's daily protein intake exceeds Healthlink BC's recommended intake by 77.85%. Though client works out regularly, the quantity and the type of protein may require some adjustment as according to Harvard Medical School's website, consistent high protein intake is often associated with:
  - High cholesterol and a higher risk of cardiovascular disease
  - Increased colon cancer risk
  - Kidney disease and kidney stones
  - Weight gain
  - Constipation or diarrhea
- o More in assessment section of report.

#### • 2.33 Dairy Sources:

- Consists primarily of whey protein and cottage cheese
- o High dairy intake
- o Consumes these products regularly and in high amounts
- As per client, dairy causes him to release gas; therefore, most likely has dairy sensitivity
- o Dairy is also an inflammatory agent

#### • 2.34 Fruits and Vegetables:

- o Consists primarily of half a grapefruit a day and spinach salad for lunch
- Extremely low fibre intake which down the road may lead to some of the health complications caused by a high protein low fibre intake diet
- A low fibre intake may be contributing to the client's continued psoriasis inflammation and knee injury inflammation
- Consumption of leafy greens and dark coloured fruits often have high antiinflammation and anti-oxidation properties
- The fibre from fruits and vegetables will also help manage weight (a future goal of the client's) and regulate energy and mood
- Fibre is also an easy way to add bulk to meals without the calories, but that is nutrient dense
- More in assessment section of report.

## • 2.35 Healthy Fat Choices:

- Consist only of coconut oil
- o Extremely low healthy fat intake
- Low healthy fat intake can potentially cause hormonal, neurological, cell repair and production, inflammation, oxidation, joint, and many other physiological issues
- Hormones are made up of protein and fats, without one of these two components, hormones cannot be produced causing hormonal imbalances, for example:



- Testosterone → sexual health, energy, muscle building
- Oestrogen → anti-inflammation
- Aldosterone → sodium regulation in the kidney, salivary glands, sweat glands and colon
- Cortisol → controls blood sugar levels, regulate metabolism, and help reduce inflammation)
- Fat is also a building block of cells in the body, and without fat, cells cannot be repaired or produced which can affect body in many different ways, such as tissue healing, muscle growth and repair, and gut healing
- More in assessment section of report.

#### • 2.36 Whole Grains:

- Client does not consume whole grains
- o A required macronutrient for the body to better regulate energy
- o More in assessment section of report.

#### **Section 3.0: Assessment:**

#### 3.1 Conditions to be Addressed:

- 3.11 Decrease Inflammation Through a Balanced Low Inflammatory Diet that Focuses Primarily on Macronutrients:
  - Client's inflammations psoriasis (first chief concern), knee injury (second chief concern), dairy sensitivity, and allergies can all be minimized and maintained with a proper low inflammatory diet that is high in macronutrients (proteins, fats, and carbohydrates) and micronutrients (vitamins and minerals)
  - By focusing on a macronutrient diet, the combination of different macronutrients, and the quantity and quality of the macronutrients will help the client absorb nutrients that his body needs while staying within range of his calories
  - O As a rule of thumb, half the plate should be greens, one quarter of the plate should be healthy protein and the last quarter should be healthy carbohydrates. Healthy fats can be incorporated into meals in creative ways, such as using seeds and nuts as salad toppings, avocado oil in salad dressings, having fish instead of chicken which takes care of both fat and protein, or having avocado which is both a carb and a fat, and so on and so forth. For more information on how to count macros instead of calories, search for the "Macro Diet" in an Internet browser.
  - Also, by focusing on a balanced diet, it will also address client's third chief concern on fatigue/energy/sleep management, and the client's longer term goal of obtaining practical strategies for managing nutritional program, and losing 15lbs by July 2019



## • 3.12 Decrease Inflammation Through Proper Supplementation and Dosing:

- With proper supplements and dosages, it should help to decrease client's inflammation (first and second chief concerns)
- Proper supplementation and dosages will also help address client's third chief concern of fatigue/energy/sleep management, his longer term goal of losing 15lbs by July 2019, as well as help minimize potential damage or long term damage caused by a high protein, low fat, and low fibre diet

## • 3.13 Improve Overall Quality of Life Through Increased Sleep/Sleep Quality:

- Though the client's stress, energy, sleep and mood are already pretty good, his sleep length, routine, and quality can be improved slightly to further support 3.11 and 3.12, as well as his longer term goals
- o Increasing sleep hygiene will allow for: 1). The body to repair especially since he works out regularly, 2). Proper production level of hormones (i.e. growth hormone for repair, cortisol/insulin balance, testosterone for muscle building, oestrogens for injury recovery, etc.), 3). The maintenance of a steady level of energy throughout the day (third chief concern), and 4). Weight management (longer term goal).

#### 3.2 Goals of Treatment and Strategy:

#### • 3.21 Goals:

- Decrease inflammation through a balanced low inflammatory diet that focuses primarily on macronutrients
- o Decrease inflammation through proper supplementation and dosing
- o Improve overall quality of life through increased sleep/sleep quality

#### • 3.22 Strategies:

## 3.221 Decrease Inflammation Through Balanced Low Inflammatory Diet that Focuses Primarily on Macronutrients:

- Provide sample meal plans to client
- Trial low FODMAP diet that focuses primarily on macronutrients ("Macro Diet) for at least 6 months
- Focus less on calorie counting and more on nutrition
- Removal of inflammatory foods for at least 6 months
- Explain to client foods to avoid and why
- Explain to client foods to include and why
- Note: These strategies will support the client's chief concerns, long term goals, as well as support his overall health through preventative care



## 3.222 Decrease Inflammation Through Proper Supplementation and Dosing:

- Recommend proper supplements, brands, and dosages for treatment and maintenance
- First set of supplements will be for anti-inflammation, anti-oxidation, and gut support so that client can better absorb nutrients
- Second set of supplements will be an addition to the first set and will be for energy and weight management
- Third set of supplements will be an addition to the first two sets and will be for overall health and immune support
- Note: The initial set and future recommendations of supplements are aimed at supporting the client's chief concerns, long term goals, as well as supporting his overall health through preventative care

## 3.223 Improve Overall Quality of Life through Increased Sleep/Sleep Quality:

- Suggest creating sleep hygiene (i.e. sleepy time teas, meditate, journal, read, cooling room down, and minimizing screen time before bed)
- Recommend going to bed slightly earlier, even if it is 30 minutes earlier to consistently get 8 to 8.5 hours of sleep a night
- Note: The sleep hygiene recommendations are aimed at supporting the first two goals above which addresses client's chief concerns and long term goals

#### **Section 4.0: Session 1 Treatment Protocol:**

#### **4.1 Session 1**:

- 4.11 The Game Plan:
  - 4.111 Decrease Inflammation Through a Balanced Low Inflammatory Diet that Focuses Primarily on Macronutrients:
    - Introduce low inflammatory diet to client that focuses primarily on macronutrients (i.e. healthy proteins sources, high fibre fruits and vegetables, healthy fat varieties, and a good selection of healthy carbs) and less on calories as the combination of different macronutrients, and the quantity and quality of the macronutrients will help the client absorb nutrients that his body needs while staying within range of his calories



- Introduce sample meals that are macronutrient balanced and that are also micronutrient dense (i.e. colourful fruits and vegetables that are antiinflammatory and anti-oxidative)
- As a rule of thumb, half the plate should be greens, one quarter of the plate should be healthy protein and the last quarter should be healthy carbohydrates. Healthy fats can be incorporated into meals in creative ways, such as using seeds and nuts as salad toppings, avocado oil in salad dressings, having fish instead of chicken which takes care of both fat and protein, or having avocado which is both a carb and a fat, and so on and so forth. For more information on how to count macros instead of calories, search for the "Macro Diet" in an Internet browser.
- Remove for at least 6 months refined and inflammatory foods (i.e. jam, rice crackers and cakes), gluten (i.e. snacks), dairy (i.e. whey protein and cottage cheese), and sugar (i.e. jam)
- By satisfying the first three points above, it will decrease the client's inflammation on his skin (i.e. psoriasis), in his joint (i.e. knee), and in his gut (i.e. gas from dairy), which will also in-turn increase the client's sleep quality and energy, which means a better hormonal balance and production that supports the client's chief concerns and long term goals

# • 4.112 Decrease Inflammation Through Proper Supplementation and Dosing:

- o Introduce supplements for anti-inflammation, anti-oxidation, and gut support to support the client's #1 and #2 chief concerns, which also indirectly supports the client's #3 chief concern (i.e. lower inflammation → lower cortisol → lower stress → increase sleep/energy/mood → increase tryptophan, serotonin, melatonin → increase growth hormone → increase muscle growth and repair → better weight management → overall better hormonal balance)
- The anti-inflammation supplements will include fish oil with a EPA:DHA ratio of 2:1, curcumin in softgel capsule form, and L-Glutamine for knee injury and overall workout performance
- After an intense workout such as weight training and bootcamp the client participates in regularly, levels of L-Glutamine in the body can decrease significantly. By supplementing with L-Glutamine, it will help with production of growth hormone, which aids in muscle recovery, muscle growth, and muscle strength, as well as gastrointestinal health to lower inflammation in gut caused by high dairy intake.
- More importantly, L-Glutamine will help the client in his knee injury recovery as it is specifically beneficial for muscles and tendons (front and around knee); where glucosamine, which is what the client is currently taking, is specifically for cartilage (between joints)



## 4.12 Four Dietary Interventions

- **4.121 Increase Healthy Carbohydrates Intake** (Supports Chief Concerns and More):
  - Because of the client's frequent workouts and intense works, and carbohydrates is the first source of fuel for the body, it is recommended that the client incorporates and replaces his rice crackers and cakes with healthy carbohydrates such as quinoa (also a protein source), avocado (both a fat and a carbohydrate), oats in moderation (also high in fibre and a protein source), wild rice (high in fibre and a protein source), and buckwheat (also a protein source)
  - Healthy carbs will support the client's energy sustainment throughout the day, manage his weight, support his workouts, decrease his inflammation, and replaces his inflammatory protein options with carbohydrates that contain high protein as well as other nutrients
- **4.122 Increase Healthy Fat Intake** (Supports Chief Concerns and More):
  - Increase healthy fats to decrease inflammation, support health cell repair and production, and hormonal balance
  - Fat is required for production of a number of key hormones for antiinflammation (oestrogen), muscle building (testosterone), weight management/metabolism (leptin)
- **4.123 Increase Fibre Intake** (Supports Chief Concerns and More):
  - Fibre not only helps to remove toxins and improve gut health, but it can also help to lower inflammation and provide anti-oxidative support, especially when consuming leafy greens and dark coloured fruits
  - Fibre is also a natural, simple, and easy way to maintain or increase energy while supporting weight management goals
- o **4.124 Remove Inflammatory Foods** (Supports Chief Concerns and More):
  - Client's high diary intake, sugar consumption, and occasional gluten snacks is most likely causing the client to constantly have low lying psoriasis inflammation, gas production, and longer recovery of his knee
  - By removing inflammatory foods, the client should see his inflammation severity decrease and the number of occurrences also decrease, as well as increased energy, mood, and sleep quality and regulate weight



## • 4.13 One Lifestyle Recommendation:

- Seek another physiotherapist that specializes in not only physical rehabilitation, but also emotional and mental rehabilitation to help client seek comfort and confidence in returning to regular workout routine
- The new physiotherapist should have experience in not only physiotherapy exercises, intramuscular stimulation (IMS), and ultrasound, but also health coaching for emotional and mental support related to sports recovery
- Possible physiotherapy clinics include Myodetox (Main and 18<sup>th</sup> and 0ak and 15<sup>th</sup>) and Citysport (Hastings and Pender)

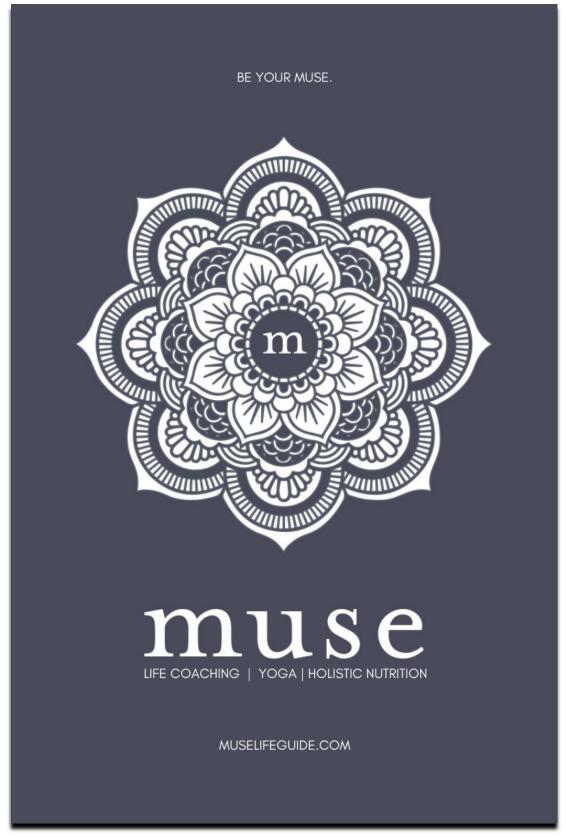
## • 4.14 One Supplement Recommendation:

- Since the client is already taking fish oil, I would recommend that he
  increase his dosage to two teaspoons from one for 6 months then go back to
  one teaspoon only if inflammation and knee injury has decreased.
- Also, since the client is already taking vitamin D, I would recommend that he increase it to 5,000 IU for 6 months and then go down to 3,000 IU but only if inflammation has decreased
- The new supplement I would recommend is L-Glutamine as it will help the client in his knee injury recovery as it is specifically beneficial for muscles and tendons (front and around knee); where glucosamine, which is what the client is currently taking, is specifically for cartilage (between joints)
- I would also recommend the client to stop taking the glucosamine as it is most likely not doing anything for the client's knee injury

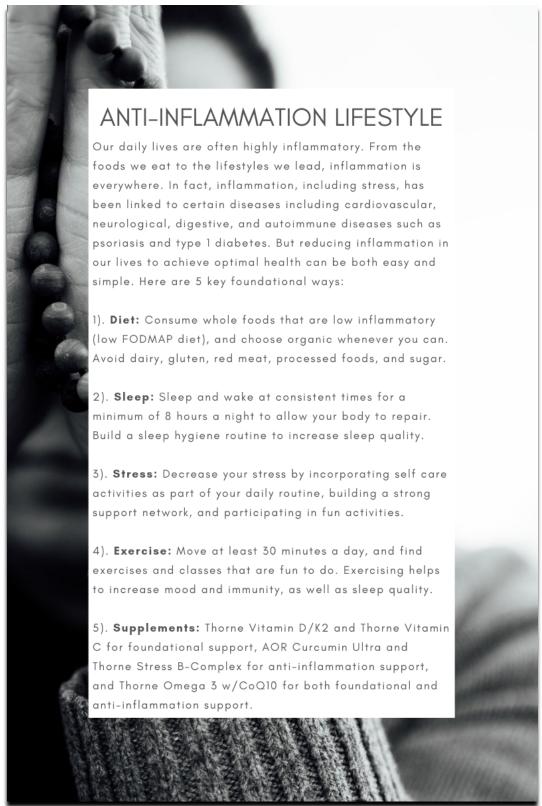
#### 4.2 Client Handouts:

Two handouts were created and will be given to the client – one handout for anti-inflammatory lifestyle tips and one handout for an anti-inflammatory turmeric coconut milk latte recipe.











BE YOUR MUSE.

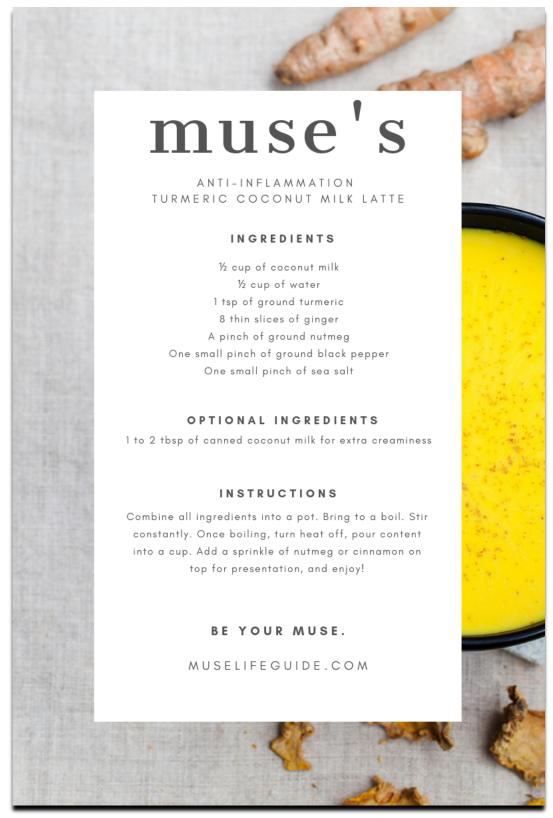




LIFE COACHING | YOGA | HOLISTIC NUTRITION

MUSELIFEGUIDE.COM







#### 4.3 Future Plan:

- **4.31 Session 1:** The two points below will focus on anti-inflammatory support that primarily addresses the client's #1 (psoriasis) and #2 (knee) chief concerns, and secondarily chief concern #3 (energy/sleep) and his long term goals (strategies for managing nutritional program and weight management)
  - o Start with:
    - Decrease inflammation through a balanced low inflammatory diet that focuses primarily on macronutrients
    - Decrease inflammation through proper supplementation and dosing
- **4.32 Session 2: Two Weeks from Session 1:** The three points below "adding on" will focus on energy and sleep that primarily addresses the client's #3 (energy/sleep) concern, and secondarily chief concerns #1 (psoriasis) and #2 (knee), as well as his long term goals (strategies for managing nutritional program and weight management)
  - o Continue with session 1 protocol
  - o Add on:
    - Improve overall quality of life through increased sleep/sleep quality
    - Supplementation for energy/mood and weight management (i.e. Stress B-Complex and vitamin D)
    - Visiting the idea of seeing a new physiotherapist (i.e. Myodetox or Citysport)
- **4.33 Session 3: Two Weeks from Session 2:** The one point below "adding on" will focus on the client's overall health and wellbeing to support all his chief concerns and long term goals.
  - o Continue with session 1 and 2 protocols
  - o Add on:
    - Supplementation for overall health and immune support (vitamin C or NAC, vitamin D, fish oil, zinc biglycinate)



## 4.4 Meal Plan:

# 4.41 7-Day Menu Plan:

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Breakfast	Avocado egg	Cooked rolled	Avocado egg	Cooked rolled	Avocado egg	Cooked rolled	Avocado egg
	bakes with	oats with	bakes with	oats with	bakes with	oats with	bakes with
	side of mixed	sprinkle hemp	side of mixed	sprinkle hemp	side of mixed	sprinkle hemp	side of mixed
	fruit	seeds and flax	fruit	seeds and flax	fruit	seeds and flax	fruit
		seeds and		seeds and		seeds and	
		topped with		topped with		topped with	
		berries		berries		berries	
Snack	Hummus with	Mixed fruit	Hummus with	Mixed fruit	Hummus with	Mixed fruit	Hummus with
	carrots,	consisting of	carrots,	consisting of	carrots,	consisting of	carrots,
	cucumber, and	blueberries,	cucumber, and	blueberries,	cucumber, and	blueberries,	cucumber, and
	red bell	kiwi,	red bell	kiwi,	red bell	kiwi,	red bell
	peppers and	strawberries	peppers and	strawberries	peppers and	strawberries	peppers and
	buckwheat	or raspberries,	buckwheat	or raspberries,	buckwheat	or raspberries,	buckwheat
	crackers	pineapple	crackers	pineapple	crackers	pineapple	crackers
Lunch	Baked lemon	Grilled chicken	Baked lemon	Grilled chicken	Baked lemon	Grilled chicken	Baked lemon
	rosemary cold	breast on baby	rosemary cold	breast on baby	rosemary cold	breast on baby	rosemary cold
	water fish (i.e.	kale salad with a mustard	water fish (i.e.	kale salad with	water fish (i.e.	kale salad with a mustard	water fish (i.e.
	cod, salmon,	a mustaru avocado oil	cod, salmon,	a mustard avocado oil	cod, salmon,	a mustaru avocado oil	cod, salmon,
	etc) on quinoa cooked in		etc) on quinoa cooked in		etc) on quinoa cooked in		etc) on quinoa cooked in
	cooked in chicken stock	dressing	cooked in chicken stock	dressing	cooked in chicken stock	dressing	cooked in chicken stock
	mixed with		mixed with		mixed with		mixed with
	vegetables		vegetables		vegetables		vegetables
Snack	Mixed fruit	Hummus with	Mixed fruit	Hummus with	Mixed fruit	Hummus with	Mixed fruit
Shack	consisting of	carrots,	consisting of	carrots,	consisting of	carrots,	consisting of
	blueberries,	cucumber, and	blueberries,	cucumber, and	blueberries,	cucumber, and	blueberries,
	kiwi,	red bell	kiwi.	red bell	kiwi,	red bell	kiwi,
	strawberries	peppers and	strawberries	peppers and	strawberries	peppers and	strawberries
	or raspberries,	buckwheat	or raspberries,	buckwheat	or raspberries,	buckwheat	or raspberries,
	pineapple	crackers	pineapple	crackers	pineapple	crackers	pineapple
Dinner	Grilled chicken	Baked lemon	Grilled chicken	Baked lemon	Grilled chicken	Baked lemon	Grilled chicken
	breast on baby	rosemary cold	breast on baby	rosemary cold	breast on baby	rosemary cold	breast on baby
	kale salad with	water fish (i.e.	kale salad with	water fish (i.e.	kale salad with	water fish (i.e.	kale salad with
	a mustard	cod, salmon,	a mustard	cod, salmon,	a mustard	cod, salmon,	a mustard
	avocado oil	etc) on quinoa	avocado oil	etc) on quinoa	avocado oil	etc) on quinoa	avocado oil
	dressing	cooked in	dressing	cooked in	dressing	cooked in	dressing
		chicken stock		chicken stock		chicken stock	
		mixed with		mixed with		mixed with	
		vegetables		vegetables		vegetables	
Extra	Plant based	Plant based	Plant based	Plant based	Plant based	Plant based	Plant based
(Post	protein shake	protein shake	protein shake	protein shake	protein shake	protein shake	protein shake
Workout)	blended with a	blended with a	blended with a	blended with a	blended with a	blended with a	blended with a
	serving of	serving of	serving of	serving of	serving of	serving of	serving of
	hemp protein	hemp protein	hemp protein	hemp protein	hemp protein	hemp protein	hemp protein
	Or	Or	Or	Or	Or	Or	Or
	Egg white	Egg white protein bites	Egg white	Egg white	Egg white	Egg white protein bites	Egg white
	protein bites mixed with	mixed with	protein bites mixed with bell	protein bites mixed with	protein bites mixed with bell	mixed with	protein bites mixed with bell
	bell peppers,	bell peppers,	peppers, herbs	bell peppers,	peppers, herbs	bell peppers,	peppers, herbs
	herbs and	herbs and	and spices	herbs and		herbs and	and spices
	spices	spices	and spices	spices	and spices	spices	and spices
Important	Eat 2.5 to 3	Eat 2.5 to 3	Eat 2.5 to 3	Eat 2.5 to 3	Eat 2.5 to 3	Eat 2.5 to 3	Eat 2.5 to 3
Notes:	hours before	hours before	hours before	hours before	hours before	hours before	hours before
Notes.	bedtime.	bedtime.	bedtime.	bedtime	bedtime.	bedtime.	bedtime.
	beatime.	beatime.	beaume.	beatime	beatime.	beaume.	beatime.
	For next 6	For next 6	For next 6	For next 6	For next 6	For next 6	For next 6
	months: avoid	months: avoid	months: avoid	months: avoid	months: avoid	months: avoid	months: avoid
	processed	processed	processed	processed	processed	processed	processed
	foods, gluten,	foods, gluten,	foods, gluten,	foods, gluten,	foods, gluten,	foods, gluten,	foods, gluten,
	dairy, and	dairy, and	dairy, and	dairy, and	dairy, and	dairy, and	dairy, and
	refined sugar.	refined sugar.	refined sugar.	refined sugar.	refined sugar.	refined sugar.	refined sugar.
	Consume low	Consume low	Consume low	Consume low	Consume low	Consume low	Consume low
		FODMAP food		FODMAP food	FODMAP food		FODMAP food



Colour Legend			
	Unhealthy Choices		
	Protein Sources		
	Dairy Sources		
	Fruits and Vegetables		
	Healthy Fat Sources		
	Whole Grains		

#### 4.42 Recommended Diet Plans and Beneficial Foods:

All foods in the 7-day menu plan are low FODMAP, macronutrients, and beneficial to the client's #1 (psoriasis), 2 (knee), and 3 (energy/sleep) chief concerns, as well as it will address the client's long-term goals of obtaining strategies for managing a nutritional program, and lose 15lbs by July 2019.

During the intake interview, as well as documented in the intake questionnaire, it is clear that the client is focused on health and wellness, hence, the calorie counting. I would recommend to focus on macronutrients first, and calories second. There are many ways to stay within a calorie range or meet caloric intake with more nutritious choices that will greatly improve the body's functions, such as:

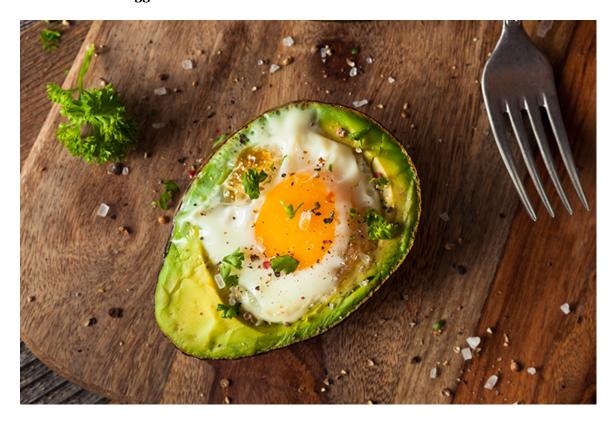
- Consuming healthy carbohydrates (i.e. buckwheat) that contain other
  macronutrients (i.e. protein) to positively contribute to the body in multiple ways –
  energy, hormones, enzymes, and cells
- Consuming fibre (i.e. kale) as a low calorie bulking agent that will help to stay within calorie ranges, but also help to curb hunger while providing micronutrients (i.e. anti-inflammatory and anti-oxidation agents) to the body
- Consuming healthy fats (i.e. fish) in place of other choices such as dairy, peanuts, peanut butter to support the body's hormone production, cell repair, and inflammation that also has other macronutrient properties (i.e. protein)
- Consuming a variety of proteins that are nutrient dense to feel fuller longer

As mentioned throughout the report, a low FODMAP diet that is combined with the Macro Diet would be the most beneficial to the client. The low FODMAP diet will reduce inflammation, whereas the Macro Diet will help the client focus on getting certain amounts of macronutrients—protein, carbohydrates, and fat, which in-turn will help the client make more nutritious choices by considering the quality of the food. Furthermore, the Macro Diet in combination with the low FODMAP diet will help the client gain lean muscle as the fibre and macronutrient choices will help the client feel fuller longer, but also help with metabolism, energy output for workouts, testosterone production for muscle growth, which equals calories burnt.



## 4.43 Three Sample Recipes:

## 4.431 Avocado Egg Bakes:



## Ingredients:

- 1 Avocado
- 2 Eggs
- Coconut oil or avocado oil
- Salt to taste
- Pepper to taste
- Cayenne pepper to taste

#### **Instructions:**

- 1. Preheat oven to 425 degrees F (220 degrees C).
- 2. Slice an avocado in half and remove the seed
- 3. Place each avocado half in a ramekin or roasting pan
- 4. Drizzle coconut or avocado over the green fleshy part of the avocado
- 5. Crack an egg in each avocado and sprinkle salt and pepper over each half
- 6. Bake in the preheated oven until entire egg is cooked through, about 15 minutes.
- 7. Remove from oven and sprinkle each avocado with a light dusting of cayenne pepper and a small sprinkle of chives



## 4.432 Grilled Chicken Breast Baby Kale Salad:



## **Ingredients:**

## • Chicken:

- o Medium chicken breast
- o 1 Tbsp of coconut oil or avocado oil
- Salt to taste
- o Pepper to taste
- o Oregano, Italian, or rosemary for flavouring and seasoning

## • Salad:

- o Boxed pre-washed baby kale salad
- o A bottle of Primal Kitchen Honey Mustard avocado oil salad dressing
- o 2 Tbsp of sunflower seeds
- o ¼ Cup of chick peas
- o ½ Cup of sliced cucumbers
- o ½ Cup of sliced red bell peppers
- o ½ Avocado



#### **Instructions:**

- 1. Season chicken breast with salt, pepper, and choice of spices/herbs
- 2. Heat a skillet and add a tablespoon of coconut oil or avocado oil to the skillet
- 3. Place chicken breast in the skillet and cook for 5 to 6 minutes on each side or until internal temperature is 165 degrees. Do not move the chicken while it is cooking.
- 4. Remove chicken from skillet once cooked, let it cool for a few minutes
- 5. While chicken breast is cooling, prep salad: slice cucumber, red pepper, and avocado
- 6. In a separate bowl, toss kale in Primal Kitchen Honey Mustard avocado oil salad dressing and place on a plate
- 7. Slice chicken breast and add to the top of the kale salad
- 8. Top with cucumber, red pepper, avocado, chick peas, and a sprinkle of sunflower seeds

#### 4.433 Baked Lemon Rosemary Salmon on Quinoa with Mixed Vegetables



## **Ingredients:**

- Salmon:
  - Salmon filet with bones removed
  - Coconut oil or avocado oil
  - o 4 Sprigs of rosemary
  - o Whole lemon sliced
  - Salt and pepper to taste



## **Quinoa with Mixed Vegetables:**

- o 1 Cup of quinoa
- o 1 Red bell pepper
- o ½ Yellow squash
- o ½ Zucchini
- o 2 Cups of chicken stock
- o Salt and pepper to taste
- o 1 Tbsp of coconut or avocado oil for quinoa and 1 tbsp for vegetables

#### **Instructions:**

#### • Salmon:

- 1. Preheat oven to 400 degrees
- 2. Arrange half the lemon slices in a single layer in a roasting pan enough for the bottom of the salmon to lay on
- 3. Arrange 2 sprigs of rosemary on top of the lemons
- 4. Top with the salmon filet
- 5. Sprinkle salt and pepper on top of the salmon and lay on top 2 more sprigs of rosemary, and then layer the remaining slices of lemon
- 6. Drizzle with coconut or avocado oil
- 7. Bake for 20 minutes or until the fish is easily flaked with a fork

#### Quinoa with Mixed Vegetables:

- 1. Put the quinoa in a strainer placed over the sink for approximately two minutes. Allow the quinoa to drain.
- 2. Heat a saucepan over medium-high heat. Add approximately 1 tablespoon of coconut or avocado oil for every cup of quinoa and heat.
- 3. Toast the quinoa in the oil, stirring frequently until the quinoa is a light golden color, about six to eight minutes.
- 4. Pour the chicken broth into the saucepan, using 2 cups of broth for every 1 cup of quinoa. Bring the mixture to a boil.
- 5. Put the lid in place and decrease the heat to low. Cook for 15 minutes without stirring.
- 6. While quinoa cooks, chop the bell pepper, yellow squash and zucchini into small cubes.
- 7. Heat the oil over medium-high heat in a saucepan
- 8. Add the vegetables and season with salt and pepper
- 9. Cook until the vegetables are tender, approximately 8-10 minutes and remove from heat
- 10. Once the quinoa finishes cooking, remove the pan from the heat and let it stand, with the lid still in place, for five minutes.
- 11. Pour in the vegetables into the quinoa, mix, and serve with the salmon