

PARTICIPANT INFORMATION AND CONSENT FORM

Sponsor/Study Title: 3i Solutions / “A randomized, blinded, comparator controlled, cross-over clinical trial to assess the pharmacokinetic profile of three Coenzyme Q10 formulations in healthy adults”

Protocol Number: 25IIIR01

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Making an Informed Decision

You are invited to participate in a clinical research study. Participation in this study is strictly voluntary. To make an informed decision about participating in this study, it is important that you understand the potential risks and benefits of the study. This process, known as informed consent, ensures you have all the information needed to decide. This consent form outlines the study’s purpose, procedures, potential benefits, risks, and how your medical information will be handled.

Take your time to thoroughly read all the details about the study, and do not hesitate to ask any questions you may have regarding the information given and about the study. Study staff will answer all your questions. You have access to this form and can review it at your leisure before making a decision.

You should not sign this form until you fully understand the information provided, feel comfortable with your decision to participate, and have had all your questions about the study answered to your satisfaction. You will be provided with a signed copy of this form and are expected to keep it for your record. Once consent has been obtained, the study assessments will proceed.

Use the phone number or email address listed at the top of this page to contact study staff.

Background and Purpose

Coenzyme Q10 (CoQ10), also known as ubiquinone, is a naturally occurring antioxidant found throughout the body, particularly in the mitochondria or powerhouse of cells. CoQ10 plays an important role in energy production and helps protect cells and tissues from damage.

Although the body can make CoQ10, its levels naturally decrease with age and may also be reduced in individuals with certain chronic conditions or those taking cholesterol lowering drugs.

CoQ10 can be obtained from dietary sources; however, factors such as diet, health status, and age may affect how much CoQ10 the body produces or absorbs. The absorption of CoQ10 can vary

widely depending on the formulation because CoQ10 is a fat-soluble compound and is better absorbed when taken with fats. The investigational products being studied have been formulated to improve CoQ10 absorption, but their absorption profile has not yet been compared directly to a standard CoQ10 supplement.

The purpose of this study is to compare how the body absorbs two investigational CoQ10 formulations in comparison to a standard CoQ10 supplement in healthy adults. Results from this study will help determine whether the investigational products are absorbed differently and may inform future research on their potential use. This study is not designed to diagnose, treat, or prevent any disease.

Study Population

This study will include approximately 20 healthy males and females, 18 to 60 years of age.

How Long Is the Study?

If eligible and enrolled in the study, your participation in this study will last approximately 32 days which will be three study periods, each lasting 4 days, with a 7–10-day washout period between each study period.

Study Design

The study design describes the plan for how the study is conducted. This is a randomized, blinded, comparator controlled, cross-over clinical trial study.

Randomized — During Visit 2, if you are eligible to participate, you will be randomly assigned by chance (like flipping a coin) to 1 of 4 study groups indicating the order in which you will receive each of the 3 study products:

- CoQ10 product 1 → CoQ10 product 2 → CoQ10 product 3
- CoQ10 product 2 → CoQ10 product 1 → CoQ10 product 3
- CoQ10 product 3 → CoQ10 product 2 → CoQ10 product 1
- CoQ10 product 1 → CoQ10 product 3 → CoQ10 product 2

Neither you nor the study staff will be able to choose which group you are in, ensuring that the random assignment is fair and unbiased. You will not be informed as to which order you will take each of the study products.

Blinded — The researchers analyzing the data will not know which group you have been assigned to until the study is fully completed.

Crossover — You will start the study by receiving 1 of the 3 CoQ10 formulation products. At future study visits, you will receive the other 2 CoQ10 products based on the order for the group to which you were randomized. A washout period will be included between the 3 study periods.

A washout period is a specific amount of time to allow substances to clear from the body. This design allows researchers to compare the effects of all 3 products within the same person.

Important Things to Note

General

- To determine your eligibility to participate in this study, detailed information about your lifestyle, medications, and medical history will be collected. This information will help determine if you meet the necessary inclusion and exclusion criteria for this study.
- By signing this consent form, you are not guaranteed to be enrolled in the study. Your participation depends on meeting the study's specific eligibility criteria, which will be determined through a series of questions and assessments.
- This study uses competitive enrollment. This means that once 20 participants have enrolled and started the study, no additional participants will be accepted. Therefore, if you complete the screening phase and are found eligible, you may still be withdrawn from the study without your consent if the enrollment limit has already been reached. Since no official study enrollment would take place, you would not be eligible for study compensation.

Study-Specific

If you voluntarily agree to participate in this study, you must be willing to:

- Maintain your current lifestyle habits throughout the study.
- Avoid eating foods high in CoQ10, such as organ meats (liver, kidney, heart, etc.) and reindeer meat, while otherwise maintaining your diet as much as possible during each study period from Day 1 until completion of your visit on Day 4.
- Fast for at least 8 hours prior to Visits 2, 6 and 10.
- Consume 100% of the study products and standardized meals given in-clinic.

What Will Happen During This Study?

The following section provides an overview of the assessments, procedures, and schedule of study visits.

Assessments and Procedures

Blood Samples – All visits

The total blood volume collection will be approximately 310 mL (approximately 21 tablespoons), over the period from screening (Visit 1) to the end of the study (Visit 13) (up to 71 days). At any study visit, blood volume collected is not expected to exceed 119 mL (approximately 8 tablespoons). Additional blood samples may be collected during the study, if necessary, such as in cases of abnormal test results or processing errors, to conduct or repeat laboratory tests.

- At Visits 2, 6, and 10, an intravenous catheter will be placed to help facilitate multiple blood draws. The catheter will be flushed with saline to keep it clear and working properly throughout the visits. Conventional phlebotomy (blood draw from a vein using a needle) will also be used in this study, and may also be used during Visits 2, 6, and 10 if the catheter is not working properly.

Urine Samples – Visits 1, 2, 13

- Individuals of child-bearing potential will be required to provide a urine sample for a urine pregnancy test. You will be provided with a collection container and instructed on how to provide the sample.

Study Diary

- You will complete an online daily study diary throughout the study. Questions about lifestyle habits, avoidance of foods high in CoQ10, and any changes in medications and/or health will be included.

Standardized meals – Visits 2, 6, 10 (Day 1 of each of the 3 crossover study periods)

- You will be provided with breakfast, lunch, and dinner at 0 hours, 4 hours, 8 hours of the study visit. Standardized meals should be consumed after the consumption of study product and any applicable blood draws at these time points.
- You will be instructed to eat your meal completely.
- You should consume your 0 hour meal within 20 minutes and your 4 and 8 hour meals within 30 minutes.

Schedule of Study Visits

You are required to fast for at least **8 hours** prior to Visit 2, 6 and 10

Visit 1 – Screening
After Informed consent is obtained, the screening assessments will include: <ul style="list-style-type: none">• Review of your medical history, medications, therapies, and current health status• Weight and height measurements and body mass index (BMI) calculation• Urine pregnancy test (If applicable)• Seated Blood pressure (BP) and Heart rate (HR) measurements• Blood sample collection• Review of any changes in health• Study diaries will be provided
Visits 2, 6, 10 – Day 1 of each study period
<ul style="list-style-type: none">• Return to clinic with completed study diary• Review of medications, current health status, any changes in health, and study diary• Urine pregnancy test (If applicable)• Seated Blood pressure (BP) and Heart rate (HR) measurements• If you are eligible and still meet all study requirements, you will be randomized (assigned to a study group) and enrolled into the study• Study product consumption (CoQ10 products 1, 2, or 3)• Blood samples will be collected prior to and at 1, 2, 3, 4, 5, 6, 8, and 12 hours after consumption of the study product• Standardized meals will be provided at the time of study product consumption and at 4 and 8 hours after study product consumption• Study diary will be provided

Days 2, 3, and 4 of each study period

- Return to clinic with completed study diary
- Review of medications, current health status, any changes in health, and study diary
- Seated Blood pressure (BP) and Heart rate (HR) measurements
- Blood sample collection
- Urine pregnancy test (If applicable) at Visit 13
- Study diaries will be provided at all visits except Visit 13

Medications, Supplements, and Food/Drinks

Prescribed Medications

- You must continue taking any prescribed medications as directed by your healthcare provider throughout the study, unless they advise otherwise. Do not stop any regular medications in order to join the study unless explicitly instructed by your healthcare provider. Stopping regular medications without medical advice to join this study may pose serious health risks. If your healthcare provider recommends any new medication, changes to your current medication dose, or stopping a medication, notify the study staff immediately.
- If you are taking any prescribed medications or treatments that could interfere with the study's outcomes, you may only be assessed for eligibility after your healthcare provider has discontinued those therapies. In such cases, the study doctor will recommend an appropriate washout period before study enrollment.

Over-the-Counter (OTC) Products, Supplements, and Foods/Drinks

- If you regularly use any OTC medications, supplements, and/or consume foods or drinks that may impact study results, you must be willing to stop them for the duration of the study.
- The study doctor will let you know if these items require discontinuation and will recommend an appropriate washout period before study enrollment if needed.

Washout Period – A specific amount of time recommended by the study doctor to allow restricted substances (such as medications, supplements, foods or drinks) to clear from the body before beginning the study. If you have recently taken or stopped any restricted substances or participated in activities that conflict with the study, a washout period may be required before enrollment.

Birth Control, Pregnancy, and Breastfeeding

The effect of the study product on pregnancy and breast milk is not known. You must not participate if you are pregnant, breastfeeding or planning to become pregnant during the study.

Individuals able to become pregnant (not post-menopausal, have had a menstrual period in the past 1 year, or have not had any of the following surgeries: hysterectomy, bilateral oophorectomy, complete endometrial ablation, or bilateral tubal ligation) must have a negative Visit 1 and study period 1 day 1 and study period 3 day 4 urine pregnancy test and agree to use a medically approved method of birth control for the duration of the study. If you are using hormonal birth control, you must have been using it for at least 3 months prior to screening.

Some examples of approved methods of birth control include:

- Hormonal contraceptives including oral contraceptives, hormone birth control patch, vaginal contraceptive ring, injectable contraceptives, or hormone implant
- Double-barrier method
- Intrauterine devices (IUD)
- Non-heterosexual lifestyle or agree to use contraception if planning on changing to heterosexual partner(s)
- Vasectomy of partner at least 6 months prior to screening
- Abstinence and agree to use contraception if planning on becoming sexually active during the study

If you are of child-bearing potential, you must self-report confirmation that you are not pregnant, do not plan to become pregnant, and agree to use a medically approved method of birth control for the duration of the study.

If you become pregnant during the study, you must stop taking the study product immediately and contact the study staff. You will be withdrawn from the study and the study doctor will follow up with you until the child's birth, collect information about your pregnancy, its outcome, and the health of your child.

Since the study product is investigational, there may be other risks that are unknown. Additionally, there may be unknown risks to a pregnancy, embryo, or fetus if you become pregnant.

Study Product Information

The study product will be in Liquid or Capsule form.

Study product: 3 different CoQ10 formulations

Active Ingredient	Quantity and Acute Dose
CoQ10 Product 1	100 mg of CoQ10
CoQ10 Product 2	100 mg of CoQ10
CoQ10 Product 3	100 mg of CoQ10

Non-medicinal ingredients:

CoQ10 Product 1: Water, Capric/Caprylic triglycerides, Natural flavors, Monk fruit juice concentrate, Sunflower lecithin, Polyglycerol esters fatty acids, Citric acid, Potassium sorbate, Alpha-tocopherol

CoQ10 Product 2: Veggie Capsules, Modified food starch, Calcium phosphate dibasic, Capric/Caprylic triglycerides, Sunflower lecithin, Silicon dioxide, Polyglycerol esters fatty acids, Magnesium Stearate, Citric acid, Potassium sorbate, Alpha-tocopherol

CoQ10 Product 3: Veggie Capsules, Calcium Phosphate dibasic, Silicon dioxide, Magnesium stearate

Directions:

You will take one dose of study product at the clinic on Day 1 of each of the three study periods. A study staff member will administer the dose and confirm that it has been taken.

Depending on which study product you are given, you will take the dose as follows:

- Liquid Study Product: You will be given 5 mL of the liquid study product using an oral syringe and will then drink a cup of water.
- Capsule Study Product: You will take 2 capsules (50 mg each) for a total dose of 100 mg, with a cup of water.

Immediately after taking the study product, you will be provided with a standardized meal and will be required to eat the entire meal. You will be asked to finish this meal within 20 minutes and the 4-hour and 8-hour meals within 30 minutes.

Alternative Treatments

This study is not designed to diagnose, treat, or prevent any disease. Your alternative is to not take part in the study.

Additional Safeguards

If you need regular medical care for current medical conditions, you should continue with this medical care unless otherwise instructed by your regular physician or other healthcare professional. For your safety, you must discuss your current medical care with the study staff, as well as changes in medical conditions during the study. In addition, all new medications including supplements and natural health products (NHPs) that are taken during the study must be reported to the study staff.

Risks To You

It is possible that you could have problems or side effects from the study product that nobody knows about yet. There may be unknown risks with taking the study product. Potential side-effects of taking the study product may include:

- Nausea
- Stomach upset/abdominal discomfort
- Diarrhea or loose stools
- Heartburn
- Reduced appetite
- Mild/Transient headaches
- Dizziness
- Insomnia or difficulty in sleeping (in a minority of individuals)

Some risks associated with blood collection may include pain, bruising, and infection at the site. Alcohol swabs and proper blood collection procedures will be followed to minimize the risk of infection. Fainting during a blood draw can occur, though it is not common. Please advise the study staff if you normally faint with blood draws.

Please consult your healthcare provider if your migraine headaches increase by frequency or are associated with other symptoms like nausea or vomiting.

Could I Have an Allergic Reaction?

It is possible for people to have allergic reactions to the study product. If you have a serious allergic reaction, it could be fatal. Read the study ingredients carefully to make sure you are not allergic to any of them. Some effects of an allergic reaction that could be a sign of a life-threatening (anaphylaxis) include:

- Rash
- Difficulty of Breathing
- Wheezing
- Sudden drop in blood pressure (making you feel dizzy or lightheaded)
- Swelling around the mouth, throat, or eyes
- Fast pulse
- Sweating

If you experience any of the above-listed effects or any other side effects during the study, you should get medical help or go to the emergency room immediately and then contact the study staff. Refer to section “Whom to Contact About This Study” for instructions on what to do in case of an emergency.

Contact the study staff if you have questions about the signs or symptoms of any side-effects you read about in this consent form. Inform the study staff right away if you experience any side-effects, problems with your health or the way you feel during the study, whether you think these problems are related to the study products or not.

Potential Risks From E-Consent

You may receive a link via email/text message to download a PDF copy of this signed consent form. There may be risks of loss of privacy and confidentiality if the PDF copy of this consent form is viewed and/or stored on a personal electronic device (PED), especially if that PED is shared with other users or is lost, hacked, or subject to a search warrant or subpoena. Also, the PDF copy of the consent may not be able to be permanently removed from a PED.

Withdrawal From the Study

- Your participation in this research is strictly voluntary. You have the right to choose not to be in the study or leave at any time, for any reason, without affecting your relationship with the study doctor or study staff and without penalty or loss of benefits to which you are otherwise entitled.
- You may be asked to undergo some final visit procedures. These may include returning to the clinic to provide a final blood sample to test your markers of general health and any end-of-study assessments.
- If the study doctor or study staff finds out any related information that may greatly affect your well-being (for example, information related to your health), they will share it with you immediately.

The Sponsor has the right to stop the study at any time.

The study doctor may also stop your participation in the study at any time without your consent, but you will be informed about the reason. Reasons for this may include, but are not limited to:

- Missing scheduled study visits
- Not taking study product as directed
- Not completing required assessments or procedures
- Development of medical conditions or serious side-effects that may pose a health risk to you or the study outcomes
- The need for restricted medication(s) during the study
- If you become pregnant during the study

New Findings

Any significant findings that become available during the study which may influence your continued participation in the study will be disclosed to you as soon as possible.

Benefits

While there may be no immediate benefit to you, the results of this study will provide some of the required scientific evidence for the study products in this clinical research study. Your participation in this study supports the research that is required to ensure the science behind the study products.

Costs To You

- All the tests, study products, examinations, and medical care required as part of this study are provided at no cost to you, the public health plan, or your private medical insurance. All costs will be paid for by the Sponsor of this study.
- You, the public health plan, or your personal medical insurance (if any) should continue to pay for expenses for your current medical care and/or prescriptions. These expenses will not be paid as part of your participation in this study.
- The Sponsor of this study is paying your study doctor for the time, effort, and expenses to conduct this study.

Compensation For Participation

For your time and participation in the study, you will be compensated a total of \$1500 if you complete the entire study and all associated requirements.

You will receive your compensation after completion of the study on a ClinCard, which can be used like a prepaid Mastercard. It can be used anywhere that accepts Mastercard, or the funds can be withdrawn from an ATM (ATM fees apply). Compensation will be processed and received approximately 20 business days from the date you complete the study. Processing times may apply before funds become available on your ClinCard.

If you are enrolled (completed visit 2 and received study product), the compensation breakdown is as follows:

- | | |
|----------------------------|------------------|
| • Visit 1 (Screening): \$0 | • Visit 5: \$50 |
| • Visit 2: \$300 | • Visit 6: \$300 |
| • Visit 3: \$50\$ | • Visit 7: \$50 |
| • Visit 4: \$50 | • Visit 8: \$50 |

- Visit 9: \$50
- Visit 10: \$300
- Visit 11: \$50
- Visit 12: \$50
- Visit 13: \$200

Once enrolled, for any case in which you or the study doctor determine you cannot complete all the study visits and assessments, you will receive compensation for the visits you have completed. An early termination visit will be requested where you will bring back all study-related materials and be requested to complete some blood work and visit procedures if you consent to doing so. If you complete the early termination visit, you will be compensated \$50.

Compensation And Treatment for Injury

- In case of an injury or illness suffered while, and solely as a result of participating in this study, you will receive appropriate medical care. The Sponsor will cover necessary medical costs not covered by the provincial health plan or your private medical insurance (if any). By signing this form, you are not giving up your legal rights, nor releasing the study doctor or Sponsors from their legal and professional obligations.
- Be aware that the provincial health plan or your health care payer/insurer might not cover the costs of study-related injuries or illnesses.

Confidentiality of Records

- Staff at KGK Science (the contract research organization managing this study) will keep all your medical information confidential to the extent required by law.
- All research data (health information, past medical history, and test results from this study) will be kept in a secured location or server. Forms on which your information is entered will not contain your name (except for the study intake form and/or external requisitions if applicable)
- Any of your personal information that is stored electronically will be password protected, accessible only to authorized personnel and coded wherever possible. Electronic data may be stored on secure servers which are physically located in Canada and/or the United States.
- You will not be identified in any publication that might result from the study. Unless required by law, only the following may have access to confidential study data (not your personal information) at the study site:
 - The study doctor and study staff
 - The Sponsor (including its monitors and auditors)
 - Members of the Research Ethics Board - Univo REB (an independent ethics committee that reviewed the ethical aspects of this study to help ensure that the rights and welfare of participants are protected and that the study is carried out in an ethical manner)
 - Government regulatory authorities including Health Canada and other foreign regulatory agencies.
- While the Sponsor will not have access to your personal identifying information, the study doctor, study staff, monitors, auditors, REB, and regulatory authorities may review study records, which could include your personal identifying information (such as the signed consent form) for compliance and verification purposes.
- All study data will be archived for a minimum of 15 years from the date of completion of the study in accordance with Health Canada regulatory requirements.

- Information from this study will be submitted to the Sponsor. Information sent from the study site will not contain your name.
- You have the right to check your study records and request changes if the information is incorrect.
- While every effort will be made to protect the privacy of your information, absolute confidentiality cannot be guaranteed. This does not limit the duty of the researchers and others to protect your privacy.
- As part of this research, you may be required to use one or more of the following: a phone or web app/site, an electronic study diary (eDiary), or a device that tracks information about you. While using these, information about you may be collected and shared with the researchers or people outside of the study. This data might include personal health information, location, call logs, text message history, web browsing history, or social media use. A complete description of the data collection and sharing for an app, eDiary, or device can commonly be found in the Terms of Use, End User License Agreement, or Privacy Policy associated with the device. If you would like to read these documents, request a copy or instructions about how to access this information from the study doctor.
- While the Terms of Use, End User License Agreement, or Privacy Policy may include statements limiting your rights if you are harmed as a result of your use of the app, eDiary, or device in this study, you do not release the investigator, sponsor, institution, or agents for responsibilities from mistakes. You also do not waive any of your rights as a research participant.

By signing and dating the consent form, you give your consent to collect, use and disclose your health information as described above.

A description of this clinical trial will be available on <https://www.ClinicalTrials.gov> as required by U.S. Law. This Web site will not include information that can identify you. At most, the Web site will include a summary of the results. You can search this Web site at any time.

Future Use of Data and Specimens

- Your personal information and/or biospecimens collected during this study may be stored and used for future research. If so, any personal identifiers will be removed so that the information or samples cannot be linked back to you. As a result, we will no longer be able to identify them or identify you.
- Study doctors, including study doctors from collaborating institutions, can request this data and samples for new research. Samples and data may also be shared with outside non-profit academic study doctors as well as with for-profit study doctors or commercial entities, with whom we collaborate.
- You will not be asked to provide additional informed consent for the use of your de-identified information or samples in future research.

Future Contact

By participating in this study, you agree that the study staff may contact you in the future should additional information be needed. This contact would only occur if more data specifically related to your participation in this study were required after you have completed the study, or the study has concluded/expired. Any additional information gathered will be handled with the same confidentiality and privacy protections outlined in this consent form. You may choose not to provide additional information if contacted in the future, without any penalty or effect on the care or benefits you receive.

Whom To Contact About This Study

You can contact the study staff via email or by telephone listed on the first page of this document during the study if you experience any medical problems, suffer a research-related injury, or have questions, concerns or complaints about the study such as:

- Whom to contact in the case of a research-related injury or illness;
- Payment or compensation for being in the study, if any;
- Your responsibilities as a research participant;
- Eligibility to participate in the study;
- The study doctor's or study site's decision to withdraw you from participation;
- Results of tests and/or procedures;

If you seek emergency care, or hospitalization is required, alert the treating physician that you are participating in this research study and inform the KGK Science study staff.

A research ethics board (REB) is an independent committee that helps to protect the rights and welfare of research participants. If you have any questions about your rights and welfare as a research participant, or have concerns or complaints regarding this research study, please contact Univo REB at (919) 910-7743 or via email at info@univo-group.com.

FOR ELECTRONIC CONSENT:

For electronic consent, your name, digital signature, date and time of consenting will be added below by the consenting software. By adding your electronic signature, you consent to the material provided as if you were physically signing a hard copy of this document. By signing this informed consent document, you acknowledge that you have read and fully understand all the pages of the information presented in it.

Participant

I voluntarily agree to participate in this study

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