

# A Simple Guide to Meal Preparation:



**Assisting Older Adults with  
Executive Functioning  
Difficulties in the Kitchen**

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# Executive Functioning?

Age-related cognitive decline, especially in **executive functioning (EF)** is extremely common among older adults: it's important to remember – this is a normal part of the aging process and you are not alone.

## What exactly *is* executive functioning?

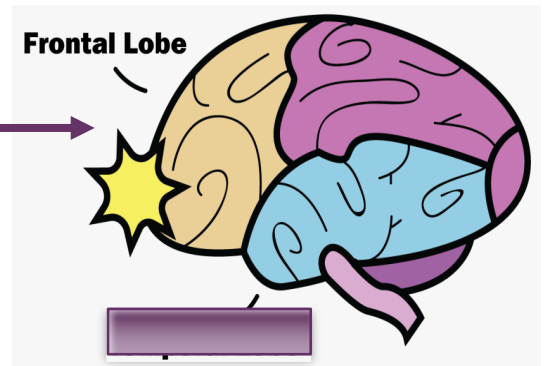
- Higher level cognitive capacities that allow us to engage in self-directed behaviors (Barney & Perkinson, 2016).
- Common skills related to EF include ... (Kimbell, A.M., 2012)
  - **Task shifting** – can you easily switch between engaging in multiple tasks?
  - **Inhibition of irrelevant information** – are you able to ignore distractors that are unrelated to the task at hand?
  - **Planning, Initiation & Sequencing of tasks** - is it challenging to complete multi-step activities?
  - **Problem Solving**
  - **Information Processing Speed** – does it take longer to understand & react to information received?
  - **Attention & Working Memory**
  - **Mental Flexibility** – do you find it difficult to switch between thinking about or think simultaneously about different concepts?

- **Time Management**
- **Emotional Regulation** – appropriate use of emotions & managing emotions in stressful situations
- **Organizational Skills** – is it difficult to keep track of things?

## What causes deficits in executive functioning?

- Changes in the *frontal lobe & pre-frontal cortex* of the brain

- Loss of neurotransmitter dopamine (DA)
- Age-related reductions in white matter within the brain
- Reduced volume of prefrontal cortex



(Lindenberger et al., 2008)

- Changes in our limbic system can also cause EF deficits relating to emotional regulation abilities (Lindenberger et al., 2008)

## What's the *big deal* about executive functioning?

Executive functioning is a large predictor of functional decline in older adults. One in four (1:4) older adults will experience difficulties in completing activities of daily living (ADLs) as a result of deficits in EF (Puente et al., 2014). The consequences of these deficits often result in a loss of independence & an increased need for assistance with ADLs. A loss in independence can further contribute to associated feelings of decreased self-worth & a perceived lack of competence in participation of daily occupations.

# Meal Preparation

## Executive Functioning & Meal Preparation:

Meal prep is a cognitively demanding task that requires several skills pertaining to EF. So – what areas of meal prep will be affected by deficits in executive functioning? (listed below are just a few examples)

- *Meal Planning & Time Management*
  - What materials are needed & how much? How much time will I need to complete the task?
- *Assembling Ingredients*
  - Can I locate all identified ingredients needed? (Levine et al., 2000)
- *Misinterpreting instructions*
  - Can I filter out any irrelevant details listed? Do I have to continuously check instructions for information? (Levine et al., 2000)
- *Following a sequence of steps*
  - Am I leaving out key steps for preparation? Am I completing steps in the wrong order? (Levine et al., 2000)
- *Shifting between different tasks*
  - i.e., Can I prepare ingredients while maintaining an appropriate workspace? Can I prepare dry ingredients while cooking on the stove top?
- *Working Memory*
  - Am I able to remember steps of a task without having to re-check? Do I forget to check on prepared food?



# Improving Meal Preparation:

## Environmental Modification

### *Reducing Clutter & Staying Organized*

Clutter within the kitchen and un-organized materials can make for a challenging time when preparing a meal. Clutter and poor organizational skills can lead to difficult times locating necessary materials & it can also serve as a large distractor during task completion. Various tips & techniques can be implemented to help reduce clutter & improve organization in order to more effectively complete meal preparation.

## STORAGE BINS & CONTAINERS



<https://www.containerstore.com/s/kitchen/cabinet-organizers/Plastic/clear-plastic-storage-bins-with-handles-starter-kit/12ld?productId=11010037>

Place items such as measuring cups, seasonings, Tupperware containers & other small materials into these storage bins. Good for clearing up counter space.



<https://www.containerstore.com/s/oxo-good-grips-pop-5-piece-canisters/d?productId=11010870&q=plastic%20containers>

Can be used to store bulkier foods whose packaging takes up more space (i.e., pasta, cereal, rice). Also helps to free up space & reduce clutter!

## LABELS

Use of labels is a simple and effective means for keeping more organized in the kitchen. Creating & attaching labels to frequently used kitchen materials can make for easier identification as well.

[https://www.amazon.com/CHALKBOARD-LABELS-Pantry-Storage-Stickers/dp/B01K7Y8OMY/ref=sr\\_1\\_2?dchild=1&keywords=label+for+containers&qid=1591727713&sr=8-2](https://www.amazon.com/CHALKBOARD-LABELS-Pantry-Storage-Stickers/dp/B01K7Y8OMY/ref=sr_1_2?dchild=1&keywords=label+for+containers&qid=1591727713&sr=8-2)



Sticker labels are cost friendly & easy to create. It might be helpful to place labels on cabinets and drawers indicating what's located in each to make identification easier. You can also place labels on individualized ingredients making them easier to read & identify.

*Linked below you will find a few different resources that provide other helpful tips for keeping your kitchen organized & keeping away from clutter during meal prep.*

<https://www.cooksmarts.com/cooking-guides/create-a-functional-kitchen/kitchen-organization/>

- Discusses the creation of cooking zones: prep zone, cook zone, clean-up zone & put away zone
- Creating a cooking strategy before beginning meal preparation
- Tips for tidying up your kitchen

<https://www.cooksmarts.com/articles/renovation-how-to-organize-cabinets-kitchen-zones/>

- Provides very helpful tips regarding cabinet & drawer organization in relation to the various cooking zones as mentioned above. For example, in the preparatory zone you would place items such as cutting boards, prep bowls, various utensils, measuring cups, etc.

Other tips to consider: Get rid of items you no longer use. Put away dishes immediately after washing. Use stackable containers to utilize space. Utilize drawer & cabinet partitions to keep areas more organized.

## A Memory Strategy for Meal Prep:

### **Simplified Checklist**

Creating a checklist that can be used during every meal preparation can help to keep you on track & ensure that you aren't missing any important steps. Instead of just following step-by-step instructions which can often be misinterpreted ... a checklist allows you to break down the different steps listed and actually learn them in order to prepare a meal more effectively.



Things to include as part of a checklist include ... (Levine et al., 2000)

- *What recipe are you preparing? What is the total prep time & cook time?*
  - This can also help with understanding & practicing time management
- *What ingredients are needed? Am I able to collect all ingredients?*
  - Write down all ingredients that are needed & then go back through and check-off each ingredient after it has been located. Ask yourself if you have everything you need before proceeding.
- *Preparing the ingredients*
  - Are all ingredients combined appropriately? Is everything ready to start cooking?
- *Following the cooking instructions*
  - Ask yourself if you've followed all the steps listed. Did you skip over any steps? Check off the steps one at a time as you go.

***I've inserted the meal preparation checklist that I've created at the end of this document for reference***

Before engaging in meal preparation activities, fill out the checklist FIRST with all necessary information. Keep the checklist on hand throughout the entire task & refer back to list to check off everything that you've completed.

Other tips: If you have someone else around, have them provide feedback on your performance during meal prep. Let them identify things that you might have

struggled with & what you could do to improve. Feedback has been known to be beneficial in improving learning & performance!

## Assistive Technologies:

There are various assistive technologies available that pertain to cognition & memory that can make meal preparation easier to complete. Listed below are few different devices that might be helpful.

### Boil Alert



<https://www.lssproducts.com/product/boil-alert-1-unit/cooking-aids-and-appliances>

When boiling water, place this simple device in the pan full of water. When it begins to boil the device will rattle against the side of the pot indicating the water is boiling. This is a simple yet effective device that can help alert the individual that it's time to shift their attention back to the water during meal preparation.

### Timer on a rope:



<https://www.amazon.com/60-Minute-Timer-on-a-Rope/dp/B000E3FECM>

When preparing a meal, look for indicated cook time. You can then turn the knob on this timer & set it as a reminder. The device elicits a prolonged loud ring while providing a vibration that alerts the individual that the amount of time has surpassed. This can be beneficial if you find yourself losing track of time while in the kitchen. Additionally, if you find yourself transitioning from task to task you can use this timer to alert you to shift attention to a different meal preparation task.



## Digital Voice Recorder:

[https://www.amazon.com/Recording-Reduction-Operation-Activation-Interview/dp/Bo81RKZ635?ref=s9\\_apbd\\_otopr\\_hd\\_bw\\_bxFW&pf\\_rd\\_r=gXZHFMYBOZCR4V4WMS6F&pf\\_rd\\_p=cf664783-6c46-594c-a456-a017d54083bc&pf\\_rd\\_s=merchandise-search-10&pf\\_rd\\_t=BROWSE&pf\\_rd\\_i=227758](https://www.amazon.com/Recording-Reduction-Operation-Activation-Interview/dp/Bo81RKZ635?ref=s9_apbd_otopr_hd_bw_bxFW&pf_rd_r=gXZHFMYBOZCR4V4WMS6F&pf_rd_p=cf664783-6c46-594c-a456-a017d54083bc&pf_rd_s=merchandise-search-10&pf_rd_t=BROWSE&pf_rd_i=227758)

If you find yourself frequently having to look back at instructions when cooking, this device might be helpful. You can voice record the cooking instructions on this device & then replay them back as you move through the meal preparation process. Features on this device allow you to replay recordings at various speeds, rewind, pause and fast forward.

**To use:** hit the side button to begin the recording as you read through step-by-step instructions. Hit the same button again to stop recording. In order to play the recording back you hit the 'play' button on the top right of the device. The speed of playback can be adjusted using the double arrows displayed on the right & left. To fast forward or rewind double tap those same arrows.



## Other Helpful Resource: Cooking Classes

Participation in a cooking class with other individuals can help improve meal preparation skills for those with EF deficits as well. How can it help?

- Education on meal preparation
- Familiarizing yourself with different kitchen utensils & devices to make use easier
- Extra practice with following instructions & task sequencing
- Allows for feedback on performance and extra guidance
- Opportunities for social interaction & working with others

*Click on links to find local cooking classes:*

<https://www.mirepoixcookingschool.com/index.php/calendar>

<https://www.culinarykisses.com>

<https://www.cookingmattersdetroit.org/join-a-class>

# Who else can help?

## Cognitive Behavioral Therapists – Psychologists

CBT can assist individuals in understanding thoughts and behaviors & how this plays a role in functioning. Therapists can work on understanding current cognitive deficits and introduce effective strategies for dealing with these changes. CBT can address things like emotional regulation, time management & planning strategies – all of which are executive functioning skills. CBT can work with individuals to address performance goals; we often see that goals are broken down into steps & the individual is taught to control their focus & manage their time appropriately in order to accomplish a task.

<https://www.nbiweston.com/services/executive-functioning-training/>

## Dietitian

A dietitian can work with older adults to create simple and modified recipes that are easy to prepare in the kitchen. The dietitian can work directly with the older adult to identify any nutritional needs and how to incorporate these into meal preparation tasks without the activity becoming too overwhelming. Utilizing only a few ingredients for different recipes can limit the task demands for meal preparation, making the task much easier to complete.

## Primary Care Physician

Although these individuals might not be able to help specifically with meal preparation, they can be of assistance in addressing executive functioning deficits. Physicians can perform assessments to further understand EF deficits. They can also provide referrals to more specialized doctors (i.e., psychiatry or neurology) if older adults notice EF deficits worsening. Additionally, these professionals can prescribe

medications. Some say that stimulant medications can be beneficial for addressing executive functioning in older adults; it will be important for the older adult to bring this up to their PCP in order to learn about the effects of this medication & how they can be of help.

## Occupational Engagement

Executive functioning can impact participation in various activities of daily living. The solutions that have been provided as part of this resource can help to improve an older adult's occupational engagement – more specifically pertaining to meal preparation.

One area that was addressed as part of my resource is this idea of *general tasks & demands*. For example, one of my proposed solutions suggested the use of a simplified checklist during meal preparation activities. A checklist can be used for various tasks carried out as part of a *daily routine*. The checklist can serve as a guide for individuals as they complete and further *carry out multiple tasks*.

How might this improve occupational engagement? Utilization of a checklist can help to break down complicated activities into a simplified step-by-step process. Older adults could use this during different self-care activities (i.e., dressing, brushing teeth, etc.) or even during work-related activities to complete the task more efficiently & in a stress-free manner. As a result, we would expect individuals to place higher value on the activities as they perceive themselves as being able to complete the task in a simple manner.

Other solutions addressed as part of this resource focus more specifically on the area of *domestic life: acquisition of necessities* within activity and participation. To go even further, these solutions can help improve both *simple and complex meal preparation*. The organization techniques

discussed earlier can help address areas of organization, planning and cooking of meals. The assistive technologies can be helpful for those who struggle with attending to multiple tasks at once – which is a huge component of occupational engagement. If an individual is able to carry out daily activities in a less challenging way, it's likely that we will see improvements in overall occupational engagement because these older adults feel more competent and satisfied with their functional abilities.

# References

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<http://dx.doi.org/10.1080/13854046.2015.1005676>

# Meal Preparation Checklist

WHAT'S THE RECIPE? \_\_\_\_\_

## TIME COMPONENTS:

PREP TIME:

COOK TIME:

\*IF INSTRUCTUED... PREHEAT OVEN\*

## COLLECTING THE INGREDIENTS:

1. _____	<input type="checkbox"/>	7. _____	<input type="checkbox"/>
2. _____	<input type="checkbox"/>	8. _____	<input type="checkbox"/>
3. _____	<input type="checkbox"/>	9. _____	<input type="checkbox"/>
4. _____	<input type="checkbox"/>	10. _____	<input type="checkbox"/>
5. _____	<input type="checkbox"/>	11. _____	<input type="checkbox"/>
6. _____	<input type="checkbox"/>	12. _____	<input type="checkbox"/>

**BEFORE PROCEEDING:** Did I identify & collect all ingredients needed? If you forgot an ingredient, make sure to go back now & find it before moving on to the next step.

## PREPARING THE INGREDIENTS:

Write out all measurements / amounts of ingredients needed.

You can then proceed with measuring out the amounts & making sure you have everything that you need before proceeding.

## FOLLOWING STEP-BY-STEP INSTRUCTIONS

1. _____	<input type="checkbox"/>	7. _____	<input type="checkbox"/>
2. _____	<input type="checkbox"/>	8. _____	<input type="checkbox"/>
3. _____	<input type="checkbox"/>	9. _____	<input type="checkbox"/>
4. _____	<input type="checkbox"/>	10. _____	<input type="checkbox"/>
5. _____	<input type="checkbox"/>	11. _____	<input type="checkbox"/>
6. _____	<input type="checkbox"/>	12. _____	<input type="checkbox"/>

If you don't want to write out the instructions for each meal that you prepare, you can simply print out the recipe that provides instructions for preparation. Create check boxes next to each step that you can refer back to & check-off as you progress.

**BEFORE PROCEEDING:** Ask yourself, have I followed ALL steps?

**COOK TIME:**

SET TIMER FOR COOK TIME.

You can set multiple timers on your phone or other appliances to remind yourself to continually check on the food as it cooks.