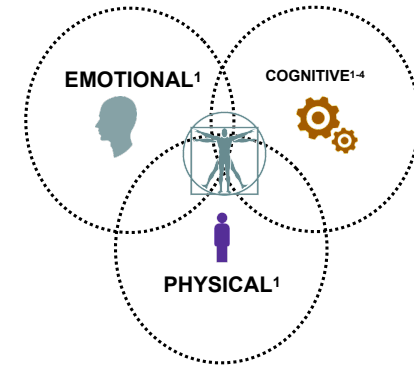


Depression without sadness
ซึมเศร้าทั้งที่ยังยิ้มได้



Depression is a Complex Multidimensional Disorders

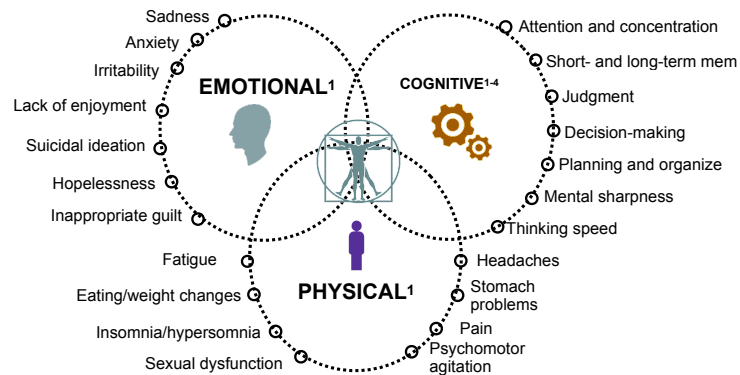
- Depression is a complex multidimensional and heterogeneous disorder
- Depression manifests as a combination of three symptom domains: emotional, cognitive and physical
- Treatment of depression should target all three domains



1. American Psychiatric Association. Diagnostic and Statistical Manual of Mental Health Disorders. 5th ed. Washington, DC: American Psychiatric Association. 2013; 2. Marazziti D et al. Eur J Pharmacol. 2010;626(1):83–86; 3. Hammar A and Ardal G. Front Hum Neurosci. 2009;3:26. doi: 10.3389/fnhum.2009.0026.2009; 4. Fehnel SE et al. CNS Spectr. 2013;21:43–52.

Depression is a Complex Multidimensional Disorders

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Major Depressive Disorder: DSM-5

- A. 5 (or more) of the following symptoms have been present during the same 2-week period and represent a change from previous functioning; at least one of the symptoms is either (1) depressed mood or (2) loss of interest or pleasure.
Note: do not include symptoms that are clearly attributable to another medical condition
 - (1) Depressed mood most of the day, nearly every day
 - (2) Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day
 - (3) Significant weight loss when not dieting or weight gain (e.g., a change of more than 5% of body weight in a month), or decrease or increase in appetite nearly every day.
 - (4) Insomnia or Hypersomnia nearly every day
 - (5) Psychomotor agitation or retardation nearly every day
 - (6) Fatigue or loss of energy nearly every day
 - (7) Feelings of worthlessness or excessive or inappropriate guilt nearly every day
 - (8) Diminished ability to think or concentrate, or indecisiveness, nearly every day
 - (9) Recurrent thoughts of death (not just fear of dying), recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide
- B. The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.
- C. The episode is not attributable to the physiological effects of a substance or another medical condition
- E. There has never been a manic episode or a hypomanic episode
- **Note:** This exclusion does not apply if all of the manic-like or hypomanic-like episodes are substance-induced or are attributable to the physiological effects of another medical condition. The symptoms are not better accounted for by Bereavement



American Psychiatric Association. (2022). Major Depressive Disorder. In Diagnostic and statistical manual of mental disorders (5th ed.)

แบบทดสอบภาวะซึมเศร้า PHQ-9

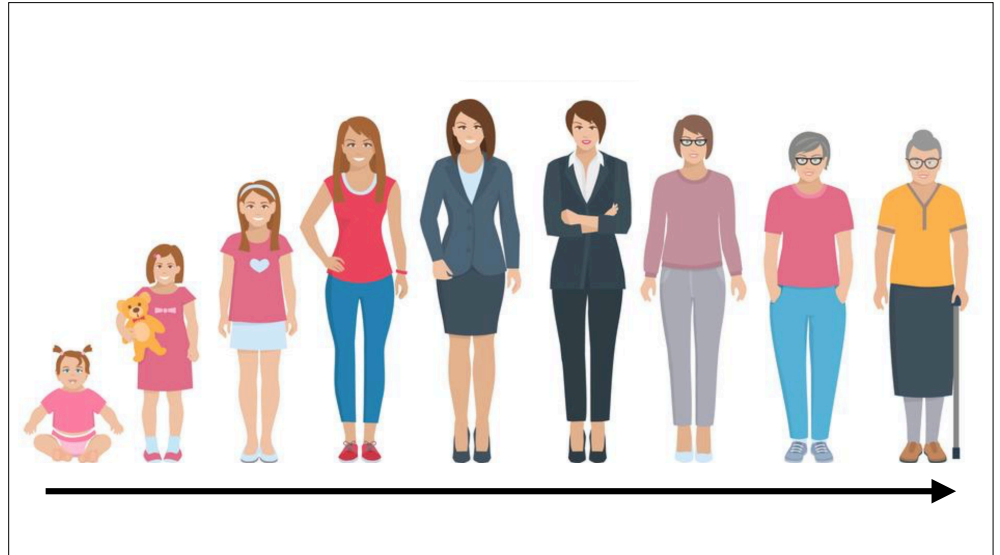
โปรดใส่คะแนนให้ตรงกับคำตอบของท่าน

(เกณฑ์ให้คะแนน: ไม่มีเลย = 0, มีบางวันหรือไม่บ่อย = 1, มีค่อนข้างบ่อย = 2, มีเกือบทุกวัน = 3)

ในช่วง 2 สัปดาห์ที่ผ่านมา ท่านมีอาการดังต่อไปนี้บ่อยแค่ไหน?

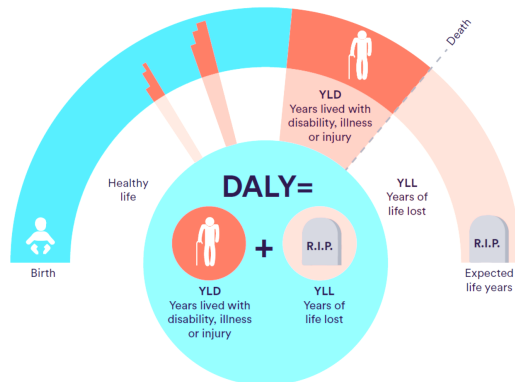
1	เบื่อ ทำอะไร ๆ ก็ไม่เกิดผล	<input type="text"/>	0
2	ไม่สบายใจ ซึมเศร้า หรือท้อแท้	<input type="text"/>	0
3	หลับยาก หรือหลับ ๆ ตื่น ๆ หรือหลับมากเกินไป	<input type="text"/>	0
4	เหนื่อยง่าย หรือไม่ค่อยมีแรง	<input type="text"/>	0
5	เบื่ออาหาร หรือกินมากเกินไป	<input type="text"/>	0
6	รู้สึกไม่มีความสุข คิดว่าตัวเองล้มเหลว หรือเป็นคนทำให้ตัวเอง หรือครอบครัวผิดหวัง	<input type="text"/>	0
7	สมาธิไม่ต่อเนื่องเวลาทำอะไร เช่น ดูโทรทัศน์ ฟังวิทยุ หรือทำงานที่ต้องใช้ความตั้งใจ	<input type="text"/>	0
8	พูดหรือทำอะไรช้าจนคนอื่นมองเห็น หรือกระสับกระส่ายจนท่านอยู่ไม่นิ่งเหมือนเคย	<input type="text"/>	0
9	คิดทำร้ายตนเอง หรือคิดว่าน่าจะตาย ๆ ไปเลยคงจะดี	<input type="text"/>	0

ส่งคำตอบ

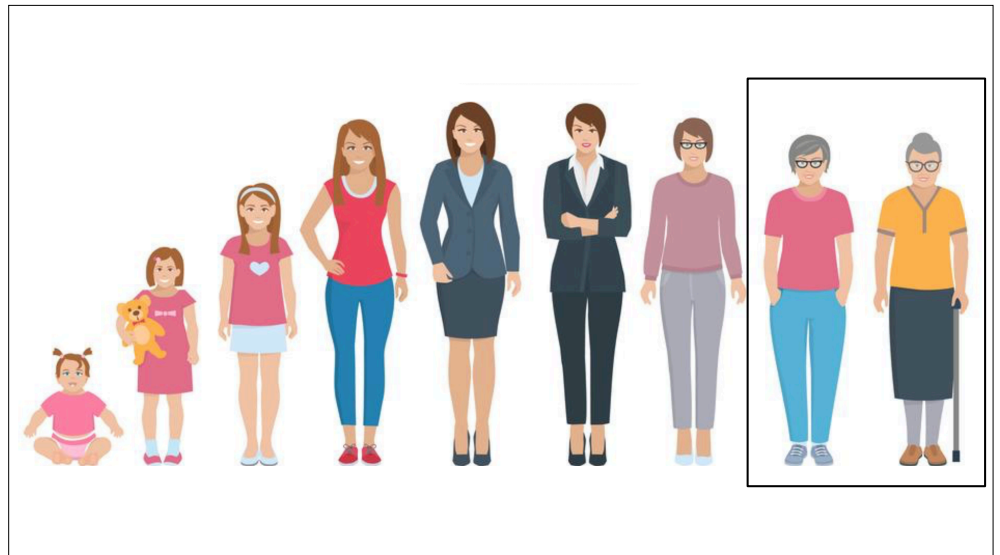


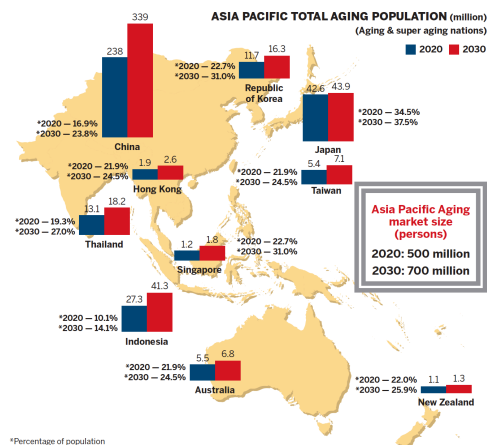
49.4

Million disability-adjusted life years

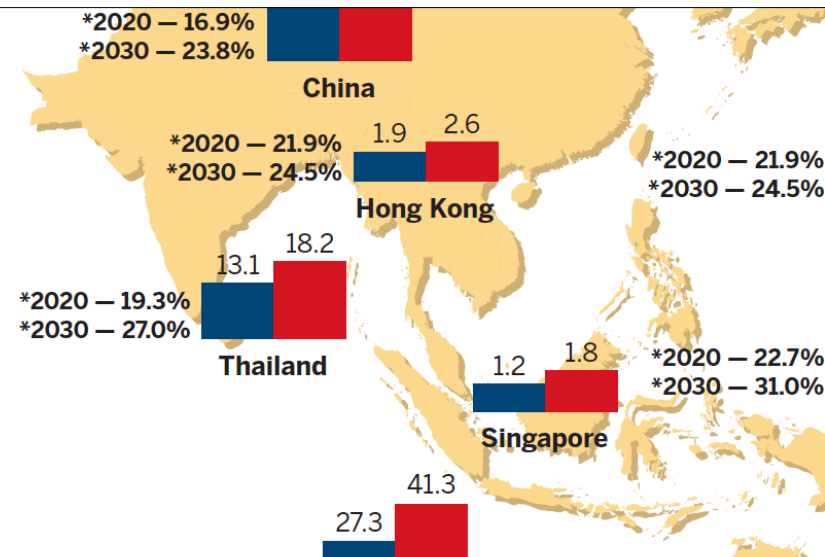


Su Y, Ye C, Xin Q, Si T. Major depressive disorder with suicidal ideation or behavior in Chinese population: A scoping review of current evidence on disease assessment, burden, treatment and risk factors. J Affect Disord. 2023 Nov 1;340:732-742. <https://www.nuffieldtrust.org.uk/resource/using-dalys-to-understand-young-people-s-health>





Wilson, Karl. "Asia braces for the gray future: urgent measures needed to tackle social and economic impact of rapidly aging population." China Daily. May 29-June 4, 2015



>10%



(AGING SOCIETY)
Aging Society

สังคมสูงวัย

หมายถึง สังคมที่มีประชากรอายุ 60 ปีขึ้นไป มากกว่าร้อยละ 10 ของประชากรทั้งหมด

>20%



(COMPLETE AGED SOCIETY)
Complete Aged Society

สังคมสูงวัยโดยสมบูรณ์

หมายถึง สังคมที่มีประชากรอายุ 60 ปีขึ้นไป มากกว่าร้อยละ 20 ของประชากรทั้งหมด

>28%



(SUPER AGED SOCIETY)
Super Aged Society

สังคมสูงวัยระดับสุดยอด

หมายถึง สังคมที่มีประชากรอายุ 60 ปีขึ้นไป มากกว่าร้อยละ 28 ของประชากรทั้งหมด

Depression in older adults

- Global prevalence of depression in older adults was **28.4%**
- Late-life depression (LLD)**: often **inadequately treated**
 - no treatment at all, lower than recommended doses of antidepressants, or being treated for too brief a period
 - poor long-term prognosis, a more chronic course, a higher relapse rate
- Depression **without sadness**, depletion syndrome
 - prejudice that depression is a **normal phase of aging**
 - stigmatisation: doctors hope to find a medical cause
 - poor ability of older patients to report their symptoms
 - minimal expression of sadness** in the current older cohort: not used to complaining about depressed mood
 - describe their symptoms in a more **"somatic"** way (more acceptable)
- Scales: TGDS, PHQ-9

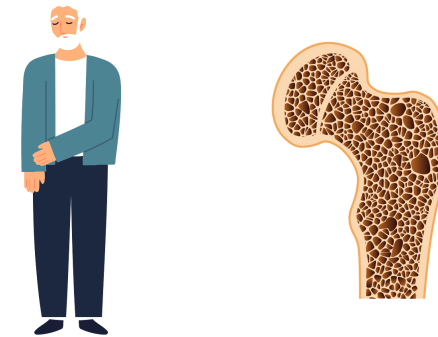


Hu T, Zhao X, Wu M, Li Z, Luo L, Yang C, Yang F. Prevalence of depression in older adults: A systematic review and meta-analysis. Psychiatry Res. 2022 May;311:114511.

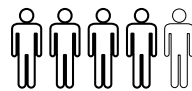
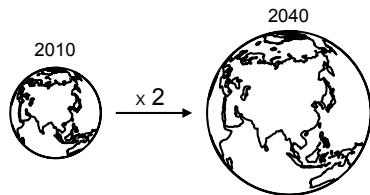
Depressive Symptoms in Younger and Older Adults

Symptoms and Clinical Presentation		Older Adults	Younger Adults
DSM* 5 core symptoms	Depressed mood	↓	↑
	Anhedonia	↑	↓
Somatic symptoms		Loss of appetite	Hyperphagia
		Insomnia	Hypersomnia
		Physical tiring/lack of energy	Fatigue
		Cognitive deficits	Poor concentration
		GI* complaints	–
		Psychomotor retardation	Agitation

Devita M, De Salvo R, Ravelli A, De Rui M, Coin A, Sergi G, Mapelli D. Recognizing Depression in the Elderly: Practical Guidance and Challenges for Clinical Management. *Neuropsychiatr Dis Treat.* 2022 Dec 7;18:2867-2880.

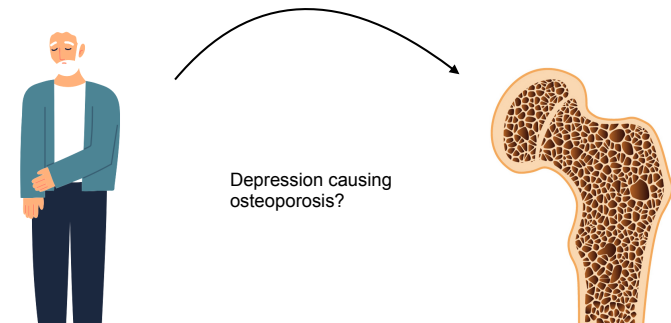


Public Health Impact of Osteoporosis in Older Age



- Prevalence of osteoporosis has risen significantly
- In 2010, estimated 158 million individuals at high fracture risk
- By 2040, estimated that the figure will double!
- 1 in 3 women and 1 in 5 men, over age 50, will experience osteoporosis fractures in their remaining lifetimes

Oden, A., et al., Burden of high fracture probability worldwide: secular increases 2010-2040. *Osteoporos Int.* 2015. 26(9)



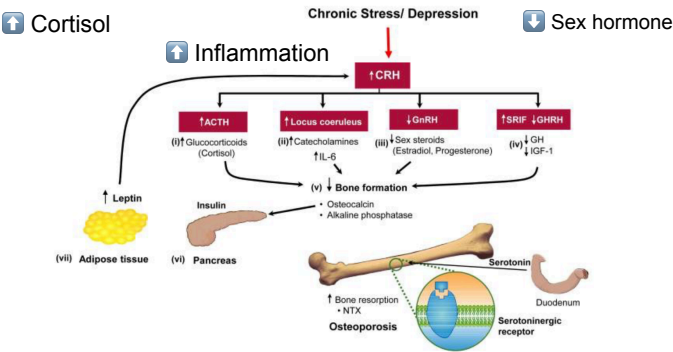
Unrecognized link between depression and osteoporosis

Study Design Setting	Diagnosis, Gender, Sample Size	Age (years) Menopausal State	Main Findings
Cross- Sectional Study at a Psychiatric Clinic (Petronijevic, 2008 [18])	Women with unipolar depression (N=73) Control women matched by age and osteoporosis risk factors (N=47)	Age: 4th decade (All premenopausal)	Women with depression had: ↓BMD at the spine and femoral neck. Approximately 45% had osteoporosis. Duration of depression was inversely related to BMD
Cross- Sectional Evaluation of a Prospective Cohort: The POWER Study (Eskandari, 2007[16])	Women with current or past MDD (N= 89) Control women (N= 44) matched by age, BMI, race	Age: 3rd decade (All premenopausal)	Women with depression had: ↓BMD at the spine and femoral neck. ↑ Prevalence of low BMD at the at the femoral neck and total hip ↓Pro-inflammatory and ↑ anti-inflammatory cytokines
Cross-Sectional Evaluation of a Prospective Cohort (Niti, 2007 [52])	Healthy subjects Community sample (N= 2,611: Men=963, Women=1648)	Age: 5th decade (All women postmenopausal)	↑ Risk of having osteoporosis if depressed: (Odds ratio: 2.32; 95% CI: 1.13 to 4.76)
Prospective evaluation of a Mexican American cohort (Tolea, 2007 [9])	Women with depressive symptoms (N=1,350)	Age: 7th decade	High depressive symptomatology was predictive of self-reported osteoporosis: Odds ratio: 1.42, 95%CI from 1.05 to 1.92. Self-reported fractures: Odds ratio: 1.43; 95% CI 1.03, 1.99

- Growing body of evidence report **association** between depression and osteoporosis
- **Bone mineral density (BMD)** is considered a reliable predictor of fracture risk
- Depression leads to hip fracture??
- Interestingly, no significant differences were found in the spine or femur BMD between depressed women and controls

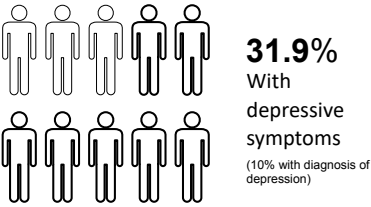
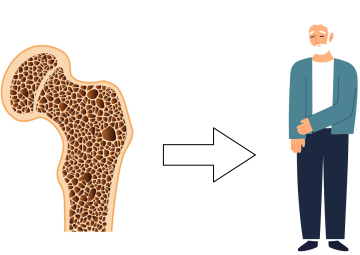
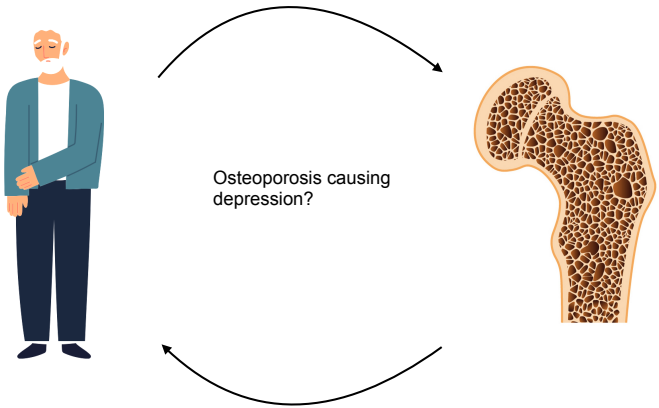
Cizza G, Primma S, Csako G. Depression as a risk factor for osteoporosis. Trends Endocrinol Metab. 2009 Oct;20(8):367-73

Unrecognized link between depression and osteoporosis



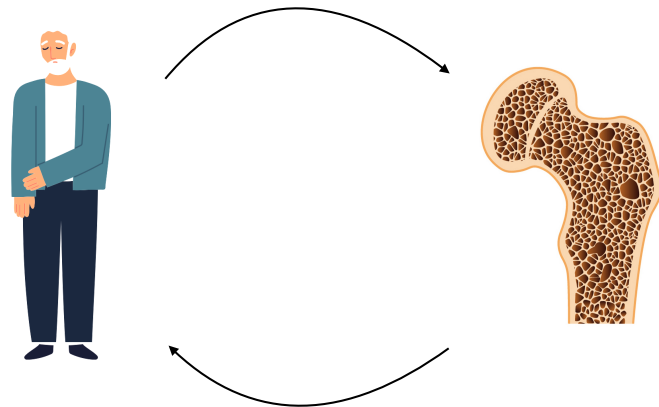
Cizza G, Primma S, Csako G. Depression as a risk factor for osteoporosis. Trends Endocrinol Metab. 2009 Oct;20(8):367-73

Unrecognized link between depression and osteoporosis



**11,603 adults (aged 50 years and older; 52.3% male).

Chen K, et al. Osteoporosis is associated with depression among older adults: a nationwide population-based study in the USA from 2005 to 2020. Public Health. 2024 Jan;226:27-31.



Lifestyle Factors and Osteoporosis in Patients with Depression


Low Calcium intake


Smoking

Remains unclear in
depression but needs to
manage


Wt bearing
exercise

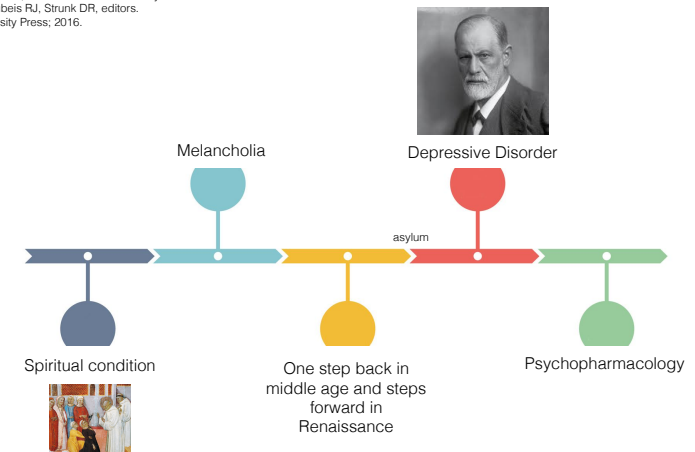

Alcohol
consumption


Lower
Body Mass
Index

HOW DO WE MANAGE DEPRESSION IN PATIENTS WITH OSTEOPOROSIS



Horwitz AV, Wakefield JC, Lorenzo-Luaces L. History
of Depression. DeRubeis RJ, Strunk DR, editors.
Vol. 1. Oxford University Press; 2016.





Recommendations for antidepressants

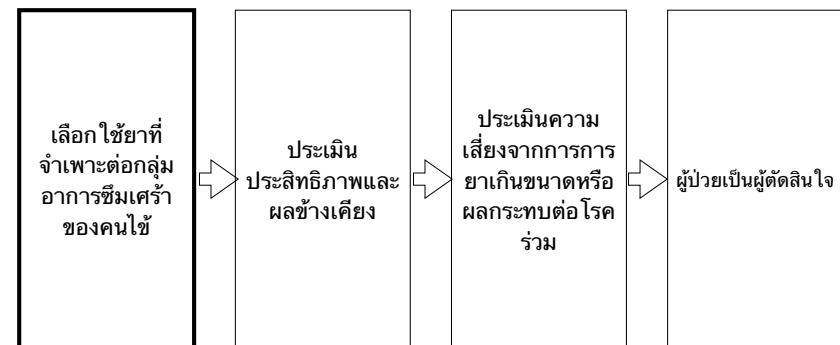


1 st Line	2 nd Line	3 rd Line
<ul style="list-style-type: none"> • Agomelatine* (MT₁, MT₂ agonist; 5-HT₂ antagonist) • Bupropion (NDRI) • Citalopram (SSRI) • Desvenlafaxine (SNRI) • Duloxetine (SNRI) • Escitalopram (SSRI) • Fluoxetine (SSRI) • Fluvoxamine (SSRI) • Mianserin* (α₂-adrenergic, 5-HT₂ antagonist) • Milnacipran* (SNRI) • Mirtazapine (α₂-adrenergic, 5-HT₂ antagonist) • Paroxetine (SSRI) • Sertraline (SSRI) • Venlafaxine (SNRI) • Vortioxetine (multimodal) 	<ul style="list-style-type: none"> • Amitriptyline, clomipramine, others (TCAs) • Levomilnacipran (SNRI) • Moclobemide (reversible inhibitor MAO-A) • Quetiapine (AAP) • Selegiline transdermal* (irreversible inhibitor MAO-B) • Trazodone (SRI; 5-HT₂ antagonist) • Vilazodone (SRI, 5-HT_{1A} partial agonist) 	<ul style="list-style-type: none"> • Phenelzine (irreversible inhibitor MAO) • Tranylcypromine • Reboxetine* (NRI)

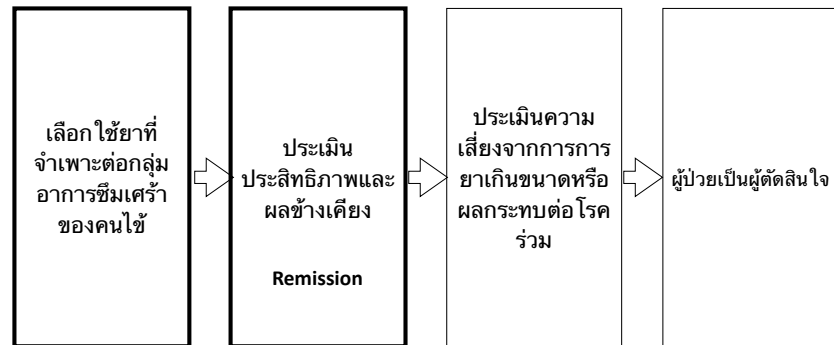
All recommendations are level 1 evidence. *Not available in Canada. Red indicates new since 2009.

5-HT, serotonin; AAP, atypical antipsychotic; MAO, monoamine oxidase; MT, melatonin; NDRI, norepinephrine and dopamine reuptake inhibitor; NRI, norepinephrine reuptake inhibitor; SNRI, serotonin and norepinephrine reuptake inhibitors; SSRI, selective serotonin reuptake inhibitor; TCA, tricyclic antidepressant.

The choice of antidepressant for a particular patient



The choice of antidepressant for a particular patient



Effect of antidepressants on bone mass and osteoporotic fractures

Antidepressants and Bone Loss

- ✓ Selective-serotonin receptor inhibitor (SSRI) was found to associate with greater bone loss in one large cohort study
- ✓ Serotonin transporter receptors have been identified on osteoblasts, making a direct effect on bone mass biologically plausible

Antidepressants and Fracture

- ✓ Selective-serotonin receptor inhibitor (SSRI) was found to associate with fracture as early as 6 weeks after exposure
- ✓ Even in the absence of bone mineral density change
- ✓ Dose dependent
- ✓ Mirtazapine carries lower risk of fracture

Pacher P, et al. Serotonin reuptake inhibitors fluoxetine and citalopram relax intestinal smooth muscle. *Can J Physiol Pharmacol*. 2001;79:580-584.
Hubbard R, et al. Exposure to tricyclic and selective serotonin reuptake inhibitor antidepressants and the risk of hip fracture. *Am J Epidemiol*. 2003

Symptom improvement ≠ functional improvement

**Symptomatic
remission:**
38%

**Functional
remission:**
32%



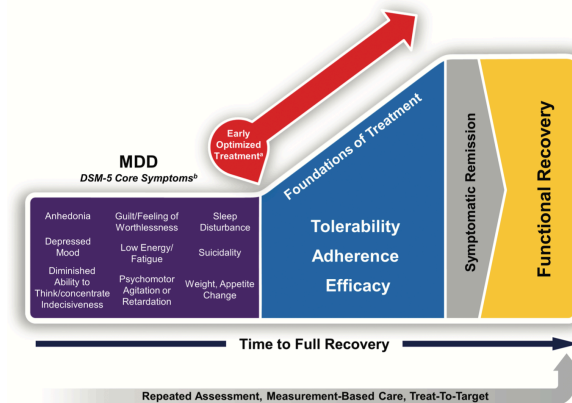
**Combined
remission:**
23%

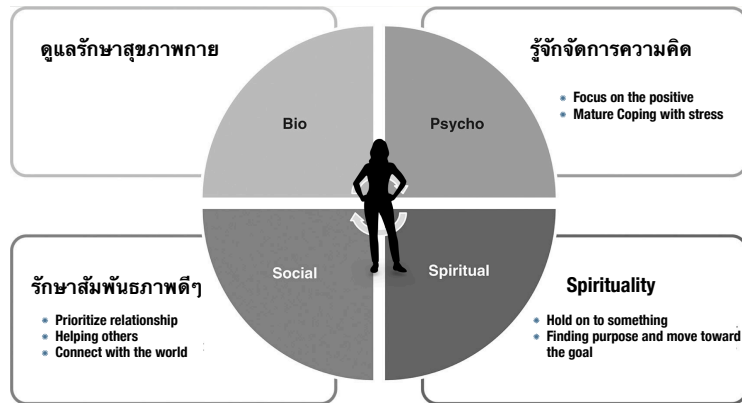
- Pooled analysis (N=1419) of data from 3 randomized, double-blind 8-week studies
- Symptomatic remission: HAM-D17 ≤ 7
- Functional remission: SDS ≤ 6

Findings show that functional remission does not always move in tandem with symptom remission and suggest the importance routine assessment of functional status in patients with MDD

HAM-D, Hamilton Depression Rating Scale; MDD, Major depressive disorder; SDS, Sheehan Disability Scale.
Sheehan DV et al. *Int Clin Psychopharmacol*. 2011;26: 75-83; Trivedi MH et al. *Int Clin Psychopharmacol*. 2009;24: 133-138.

Gesicki P, Nelson-Becker H. Remission from Depression in the DSM: Moving from Rhetoric to Restoration. *Clin Soc Work J*. 2017;46(3):220-227.
Oluboka OJ, Katzman MA, Habert J, et al. Functional Recovery in Major Depressive Disorder: Providing Early Optimal Treatment for the Individual Patient. *Int J Neuropsychopharmacol*. 2017;21(2):128-144. doi:10.1093/ijnp/nyx081

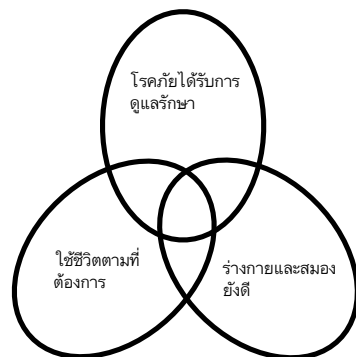




Successful Aging

OR

Longevity



What is Successful Aging?



